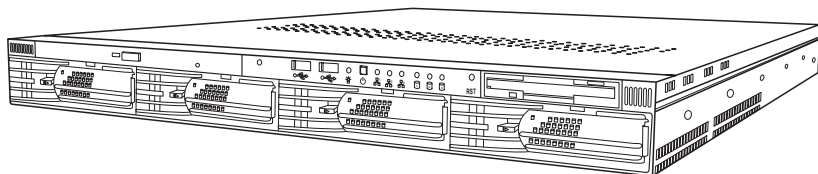


Transport GX21

B2735



User's Manual

Document part number: D1577-100

Preface

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Version 1.00

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Notice for the USA Compliance Information Statement (Declaration of Conformity Procedure) DoC
FCC Part 15: This device complies with part 15 of the FCC Rules

Operation is subject to the following conditions:

- 1) This device may not cause harmful interference, and
- 2) This device must accept any interference received including interference that may cause undesired operation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Plug the equipment into an outlet on a circuit different from that of the receiver.

Consult the dealer on an experienced radio/television technician for help.

Notice for Canada

This apparatus complies with the Class B limits for radio interference as specified in the Canadian Department of Communications Radio Interference Regulations. (Cet appareil est conforme aux normes de Classe B d'interférence radio tel que spécifié par le Ministère Canadien des Communications dans les règlements d'interférence radio.)



Notice for Europe (CE Mark) This product is in conformity with the Council Directive 89/336/EEC, 92/31/EEC (EMC).

CAUTION: Lithium battery included with this board. Do not puncture, mutilate, or dispose of battery in fire. Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by manufacturer. Dispose of used battery according to manufacturer instructions and in accordance with your local regulations.

About this manual

This manual provides you with instructions on installing your Transport GX21 (B2735), and consists of the following sections

Chapter 1:

Provides an introduction to the Transport GX21 (B2735) bare bones, packing list, describes the external components, gives tables of key components, and provides block diagrams of the system.

Chapter 2:

Covers procedures on installing the CPUs, memory modules, optional PCI card, and hard drives.

Chapter 3:

Covers removal and replacement procedures for pre-installed components.

Appendix:

Provides detailed specifications, maintenance and troubleshooting procedures, an explanation of BIOS and technical diagrams.

Safety information

Before installing and using the Transport GX21 , take note of the following precautions:

- Read all instructions carefully.
- Do not place the unit on an unstable surface, cart or stand.
- Do not block the slots or openings on the unit which are provided for ventilation.
- Only use the power source indicated on the marking label. If you are not sure, contact the power company.
- The unit uses a three-wire grounded cable, which is supplied with a third pin to ground the unit and prevent electric shock. Do not defeat the purpose of this pin. If your outlet does not support this type of plug, contact an electrician to replace the obsolete outlet.
- Do not place anything on the power cord. Place the power cord where it will not be stepped on.
- Follow all warnings and cautions in this manual and on the unit case.
- Do not push objects in the ventilation slots as they may touch high voltage components and result in shock and damage to the components.
- When replacing parts, ensure that you use parts specified by the manufacturer.
- When service or repairs have been carried out, perform routine safety checks to verify that the system is operating correctly.
- Avoid using the system near water, in direct sunlight, or near a heating device.
- Cover the unit when not in use.

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Chapter 1: Overview

1.1 About the Transport GX21 (B2735)

Congratulations on your purchase of the Transport GX21 (B2735), rack mountable, barebone system for Intel® Xeon™ processor. The Transport GX21 (B2735) uses an advanced Intel chipset for optimum performance and reliability. Add-on S-ATA or SCSI storage controllers provide great flexibility and combine with Gigabit Ethernet ports to provide powerful computing capacity and optimal I/O bandwidth for the most demanding of enterprises.

The rugged, industry standard 19-inch, rack mountable design contains up to 4 HDD bays, 1 slim CD-ROM bay and 1 3.5-inch FDD, making it both flexible and practical.

1.2 Product models

Table 1: Transport GX21 (B2735) models

Model	HDD	Hot Swap Support	HDD Back-plane	SKU TYPe
B2735G21S2	2 internal HDD bays	No	NA	Standard SKU
B2735G21S4H	4 removable HDD bays	Yes	4 port S-ATA	OEM Only
B2735G21U4H	4 removable HDD bays	Yes	4 port SCSI	OEM Only

1.3 Features

1.3 Features

1.3.1 B2735G21S2 specifications

Enclosure <ul style="list-style-type: none">• Industry standard, 19" rack mountable, 1U chassis• 2 internal access 1" HDD bays, 1 slim CD-ROM bay, 1 bay for 3.5" FDD or internal access 1" HDD• 21.5 x 17 x 1.7 inch (547 x 432 x 43 mm)	Storage <ul style="list-style-type: none">• Integrated dual channel IDE controller from ICH5R• 2 Integrated S-ATA ports from ICH5R (RAID 0,1 support)• 2 Internal (fixed) HDD bays• Slim 24x CD-ROM drive• Optional 3.5 inch FDD
Processors <ul style="list-style-type: none">• Dual mPGA604 socket• Single or dual Intel® Xeon™ processor with 512K iL2 and 1 MB iL3• 533/400 MHz FSB	Cooling <ul style="list-style-type: none">• 5 cooling fans(40 x 40 x 28 mm)• 1 power supply fan• 2 CPU heatsinks• Hardware auto fan speed control
Chipset <ul style="list-style-type: none">• Intel® E7501 server chipset• MCH + ICH5R + P64H2 + FWH• Winbond W83627HF super I/O chip• analog device ADM 1027 hardware monitoring IC	Motherboard <ul style="list-style-type: none">• Tyan Tiger S2735G3NR-8M motherboard• ATX form factor• Award BIOS 8.0 on 8 Mb LPC flash ROM• LAN remote boot (PXE) support and SMBIOS v2.3
Memory <ul style="list-style-type: none">• 128-bit dual channel memory bus• 6 DDR DIMM sockets• Up to 12 GB DDR266/200SDRAM• Support for registered ECC type memory modules	Networking <ul style="list-style-type: none">• 2 Gigabit Ethernet ports (Intel® 82546EB LAN controller)• 1 10/100 Mbps LAN port (Intel® 82551QM controller)
Expansion slots <ul style="list-style-type: none">• (1) 64-bit/133 MHz PCI-X slot on riser card	Power supply <ul style="list-style-type: none">• EPS 12V, 1U, 400W with PFC
Back I/O ports <ul style="list-style-type: none">• Stacked PS/2 mouse and keyboard ports• 2 USB 2.0 ports• 1 9-pin UART serial port• 3 RJ-45 LAN ports• 1 VGA port	Video <ul style="list-style-type: none">• ATI® Rage™ XL PCI Graphics controller• 8 MB frame buffer video memory
Front panel <ul style="list-style-type: none">• 2 USB 2.0 ports• IDE activity, LAN activity, and power LEDs• Power and reset switches	Regulatory <ul style="list-style-type: none">• FCC class B (declaration of conformity)• CE (declaration of conformity)

1.3.2 B2735G21S4H specifications

Enclosure <ul style="list-style-type: none"> • Industry standard, 19" rack mountable, 1U chassis • 4 external access HDD bays, 1 slim CD-ROM bay, 1 slim FDD bay • 21.5 x 17 x 1.7 inch (547 x 432 x 43 mm) 	Storage <ul style="list-style-type: none"> • Integrated dual channel IDE controller from ICH5R • Tyan M8110 4-port S-ATA RAID card (RAID 0,1, 0+1) • 4 hot-swap S-ATA HDD bays • Slim 24x CD-ROM drive • Slim FDD
Processors <ul style="list-style-type: none"> • Dual mPGA604 socket • Single or dual Intel® Xeon™ processor with 512K iL2 and 1 MB iL3 • 533/400 MHz FSB 	Cooling <ul style="list-style-type: none"> • 5 cooling fans (40 x 40 x 28 mm) • 1 power supply fan • 2 CPU heatsinks • Hardware auto fan speed control
Chipset <ul style="list-style-type: none"> • Intel® E7501 server chipset • MCH + ICH5R + P64H2 + FWH • Winbond W83627HF super I/O chip • analog device ADM 1027 hardware monitoring IC 	Motherboard <ul style="list-style-type: none"> • Tyan Tiger S2735G3NR-8M motherboard • ATX form factor • Award BIOS 8.0 on 8 Mb LPC flash ROM • LAN remote boot (PXE) support and SMBIOS v2.3
Memory <ul style="list-style-type: none"> • 128-bit dual channel memory bus • 6 DDR DIMM sockets • Up to 12 GB DDR266/200SDRAM • Support for registered ECC type memory modules 	Networking <ul style="list-style-type: none"> • 2 Gigabit Ethernet ports (Intel® 82546EB LAN controller) • 1 10/100 Mbps LAN port (Intel® 82551QM controller)
Expansion slots <ul style="list-style-type: none"> • (1) 64-bit/133 MHz PCI-X slot on riser card 	Power supply <ul style="list-style-type: none"> • EPS 12V, 1U, 400W with PFC
Back I/O ports <ul style="list-style-type: none"> • Stacked PS/2 mouse and keyboard ports • 2 USB 2.0 ports • 1 9-pin UART serial port • 3 RJ-45 LAN ports • 1 VGA port 	Video <ul style="list-style-type: none"> • ATI® Rage™ XL PCI Graphics controller • 8 MB frame buffer video memory
Front panel <ul style="list-style-type: none"> • 2 USB 2.0 ports • HDD activity, LAN activity, power, fan fail and temperature fail LEDs • Power and reset switches 	Regulatory <ul style="list-style-type: none"> • FCC class B (declaration of conformity) • CE (declaration of conformity)


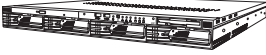
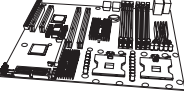
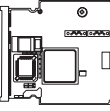





1.3 Features

1.3.3 B2735G21U4H specifications

Enclosure <ul style="list-style-type: none">• Industry standard, 19" rack mountable, 1U chassis• 4 external access HDD bays, 1 slim CD-ROM bay, 1 slim FDD bay• 21.5 x 17 x 1.7 inch (547 x 432 x 43 mm)	Storage <ul style="list-style-type: none">• Integrated dual channel IDE controller from ICH5R• Tyan M702 dual channel Ultra 320 SCSI card (HostRAID support)• 4 hot-swap, Ultra320 SCSI HDD bays• Slim 24x CD-ROM drive• Slim FDD
Processors <ul style="list-style-type: none">• Dual mPGA604 socket• Single or dual Intel® Xeon™ processor with 512K iL2 and 1 MB iL3• 533/400 MHz FSB	Cooling <ul style="list-style-type: none">• 5 cooling fans (40 x 40 x 28 mm)• 1 power supply fan• 2 CPU heatsinks• Hardware auto fan speed control
Chipset <ul style="list-style-type: none">• Intel® E7501 server chipset• MCH + ICH5R + P64H2 + FWH• Winbond W83627HF super I/O chip• analog device ADM 1027 hardware monitoring IC	Motherboard <ul style="list-style-type: none">• Tyan Tiger S2735G3NR-8M motherboard• ATX form factor• Award BIOS 8.0 on 8 Mb LPC flash ROM• LAN remote boot (PXE) support and SMBIOS v2.3
Memory <ul style="list-style-type: none">• 128-bit dual channel memory bus• 6 DDR DIMM sockets• Up to 12 GB DDR266/200SDRAM• Support for registered ECC type memory modules	Networking <ul style="list-style-type: none">• 2 Gigabit Ethernet ports (Intel® 82546EB LAN controller)• 1 10/100 Mbps LAN port (Intel® 82551QM controller)
Expansion slots <ul style="list-style-type: none">• (1) 64-bit/133 MHz PCI-X slot on riser card	Power supply <ul style="list-style-type: none">• EPS 12V, 1U, 400W with PFC
Back I/O ports <ul style="list-style-type: none">• Stacked PS/2 mouse and keyboard ports• 2 USB 2.0 ports• 1 9-pin UART serial port• 3 RJ-45 LAN ports• 1 VGA port	Video <ul style="list-style-type: none">• ATI® Rage™ XL PCI Graphics controller• 8 MB frame buffer video memory
Front panel <ul style="list-style-type: none">• 2 USB 2.0 ports• HDD activity, LAN activity, power, fan fail and temperature fail LEDs• Power and reset switches	Regulatory <ul style="list-style-type: none">• FCC class B (declaration conformity)• CE (declaration of conformity)


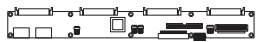


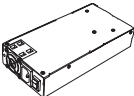



1.4 Unpacking

1.4.1 Box contents

Component	Description	B2735 G21S2	B2735 G21S4H	B2735 G21U4H
 P/N 541273080001	1 U chassis, 2 internal HDD bays	Yes		
 P/N 541273080002	1U chassis, 4 external HDD bays		Yes	Yes
 P/N 541172850002	Tyan S2735 system board (pre-installed)	Yes	Yes	Yes
 P/N 541172850002	Tyan M8110 S- ATA RAID con- troller card (pre-installed)		Yes	
 P/N 541190860001	Tyan M7902 Ultra 320 SCSI controller card (pre-installed)			Yes
 P/N 340729700001	Slim CD-ROM adapter	Yes	Yes	Yes
 P/N 523430061006	24x slim CD- ROM drive (pre-installed)	Yes	Yes	Yes
 P/N 344723200001	Slim FDD adapter		Yes	Yes
 P/N 523410290033	Slim floppy disk drive (pre- installed)		Yes	Yes

1.4 Unpacking

Box contents (cont.)

Component	Description	B2735 G21S2	B2735 G21S4H	B2735 G21U4H
 P/N 412223700099	S-ATA backplane and holding bracket (pre-installed)		Yes	
 P/N 523410290033	4-port Ultra 320 SCSI backplane (pre-installed)			Yes
 P/N 412223700102	LED control board (pre-installed)	Yes	Yes	Yes
 P/N 412223700109	64-bit riser card (pre-installed)	Yes	Yes	Yes
 P/N 471172400038	ATX 12V 400W PSU (pre-installed)	Yes	Yes	Yes
 P/N 336252012099	15,500 rpm cooling fan (2 pcs per system)	Yes	Yes	Yes
 P/N 336252012101	11,500 rpm cooling fan (3 pcs per system)	Yes	Yes	Yes
 P/N 342730800002	Fan holding bar	Yes	Yes	Yes

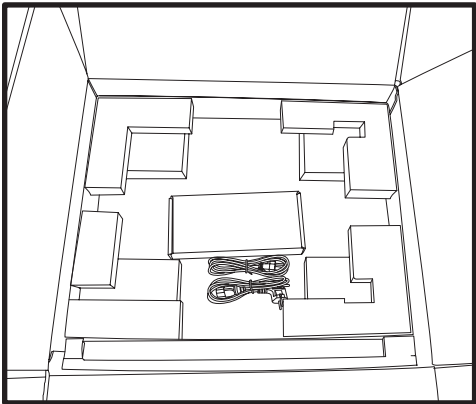
1.4.2 Accessories

<p>Power cord (US)</p>	<p>Power cable (Germany)</p>
<p>4 x S-ATA cables, motherboard to backplane (B2735G21S4H)</p>	<p>1 x 34 pin FDD cable (B2735G21S2)</p>
<p>1 x front panel cable</p>	<p>1 x SCSI cable (B2735G21U4H)</p>
<p>2 x mounting ears</p>	<p>1 x 40 pin IDE cable for CD-ROM</p>
<p>2 x CPU heatsinks P/N 343730800001</p>	<p>2 x Sliding rails P/N 341730200001</p>
<p>S-ATA power riser cable</p>	<p>Tyan driver CD and Intel 82801ER (ICH5R) S-ATA RAID driver CD</p>
<p>Motherboard quick reference guide and user's manual</p>	<p>Transport GX21 (B2735) hardware installation guide</p>

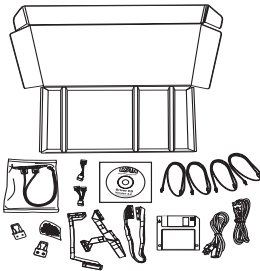
1.4 Unpacking

1.4.3 Opening the box

Open the box carefully and ensure that all components are present and undamaged. The product should arrive packaged as illustrated below.



Box contents as packaged



Accessory pack

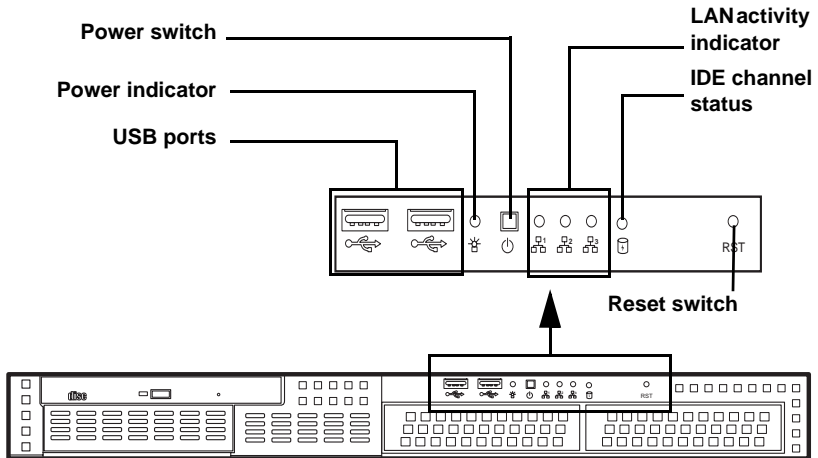


Accessories as packaged

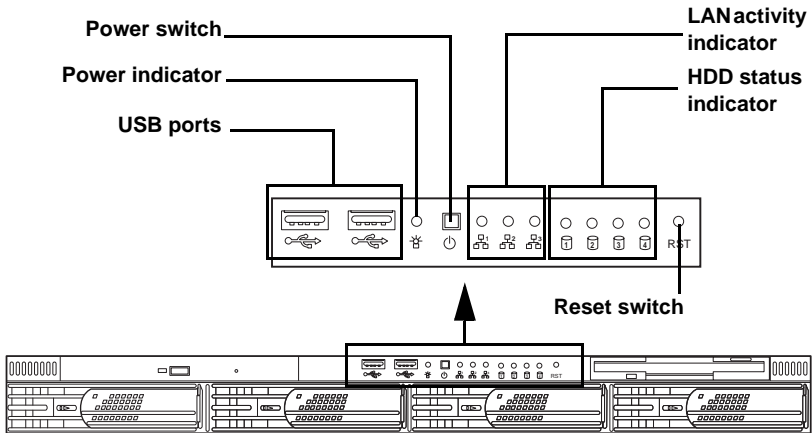
1.5 About the product

1.5.1 System front view and front panel

B2735G21S2

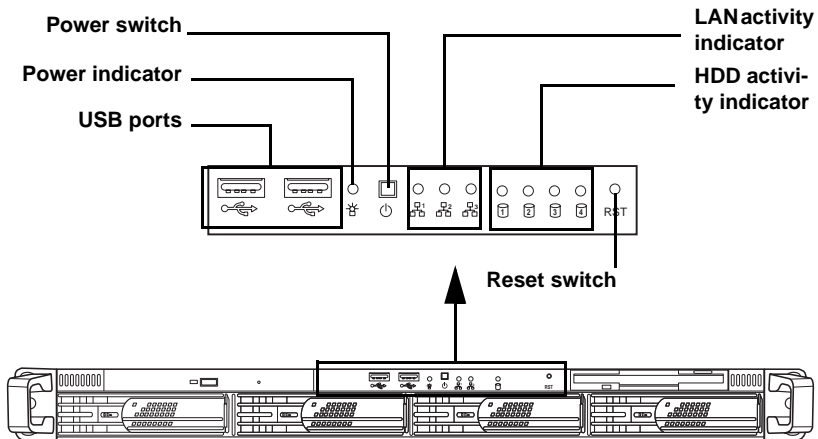


B2735G21S4H

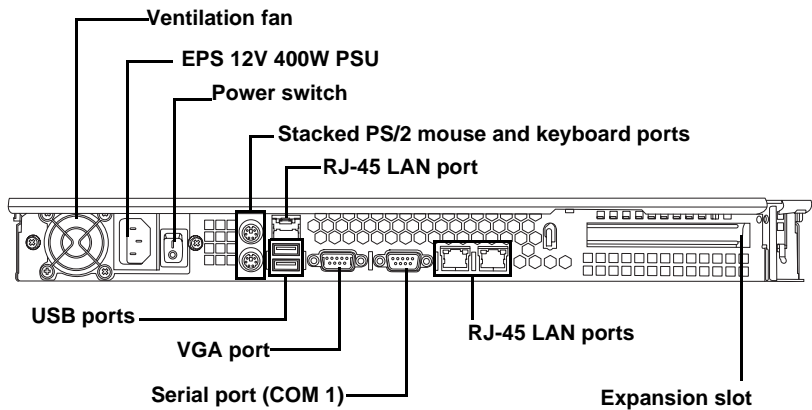


1.5 About the product

B2735G21U4H

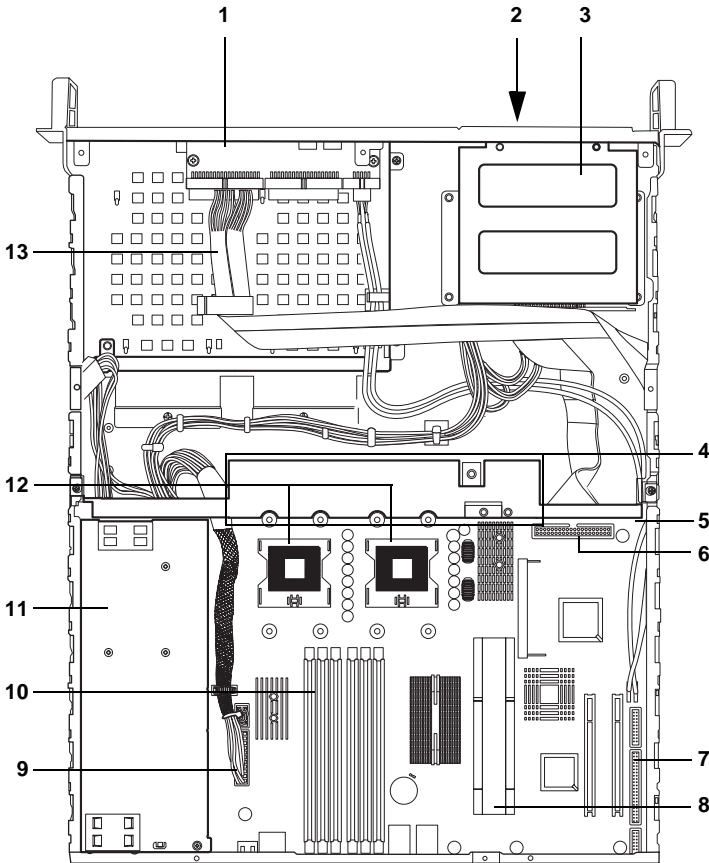


1.5.2 System rear view



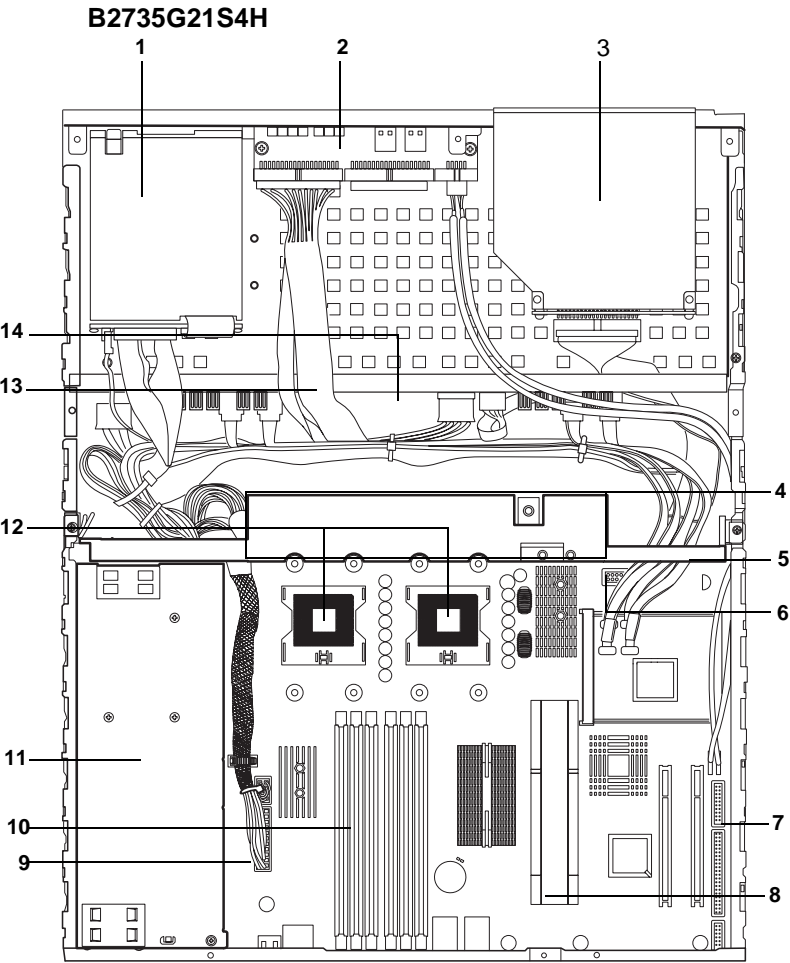
Note: All models have identical rear panel features.

1.5.3 System internal views

B2735G21S2

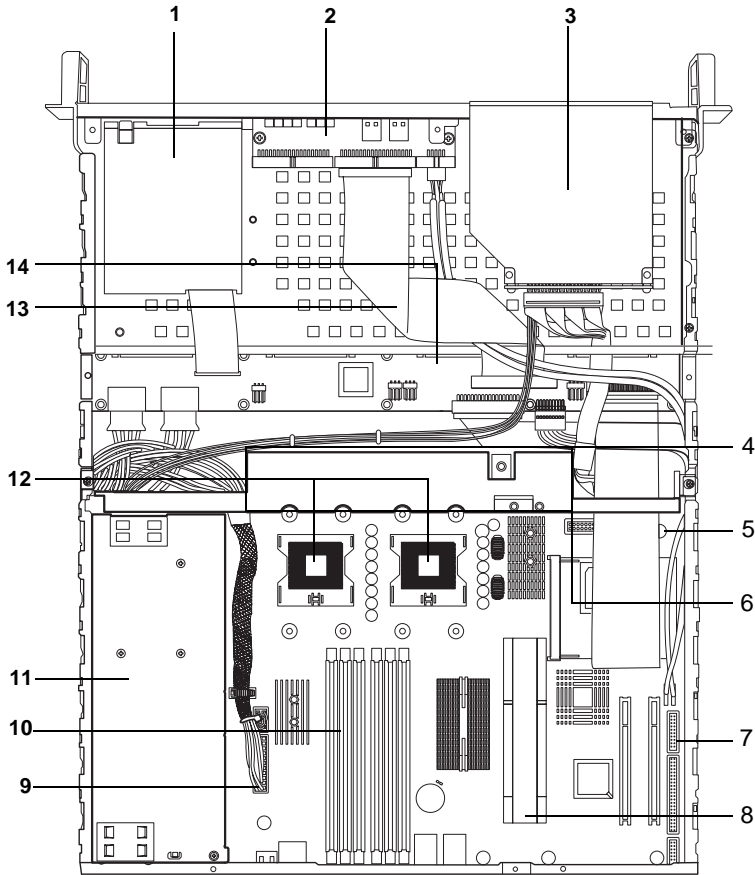
1	LED control board	8	Riser card
2	Floppy disk drive (optional)	9	Power connector
3	Slim CD-ROM drive	10	Memory slots
4	Fan bracket	11	EPS 12V 400W power supply
5	S-ATA connector	12	Processor sockets
6	IDE connector	13	Front panel cable
7	FDD connector		

1.5 About the product



1	Floppy disk drive	8	Riser card
2	LED control board	9	Power connector
3	Slim CD-ROM drive	10	Memory slots
4	Fan bracket	11	EPS 12V 400W power supply
5	S-ATA connector	12	Processor sockets
6	IDE connector	13	Front panel cable
7	FDD connector	14	4-port S-ATA backplane

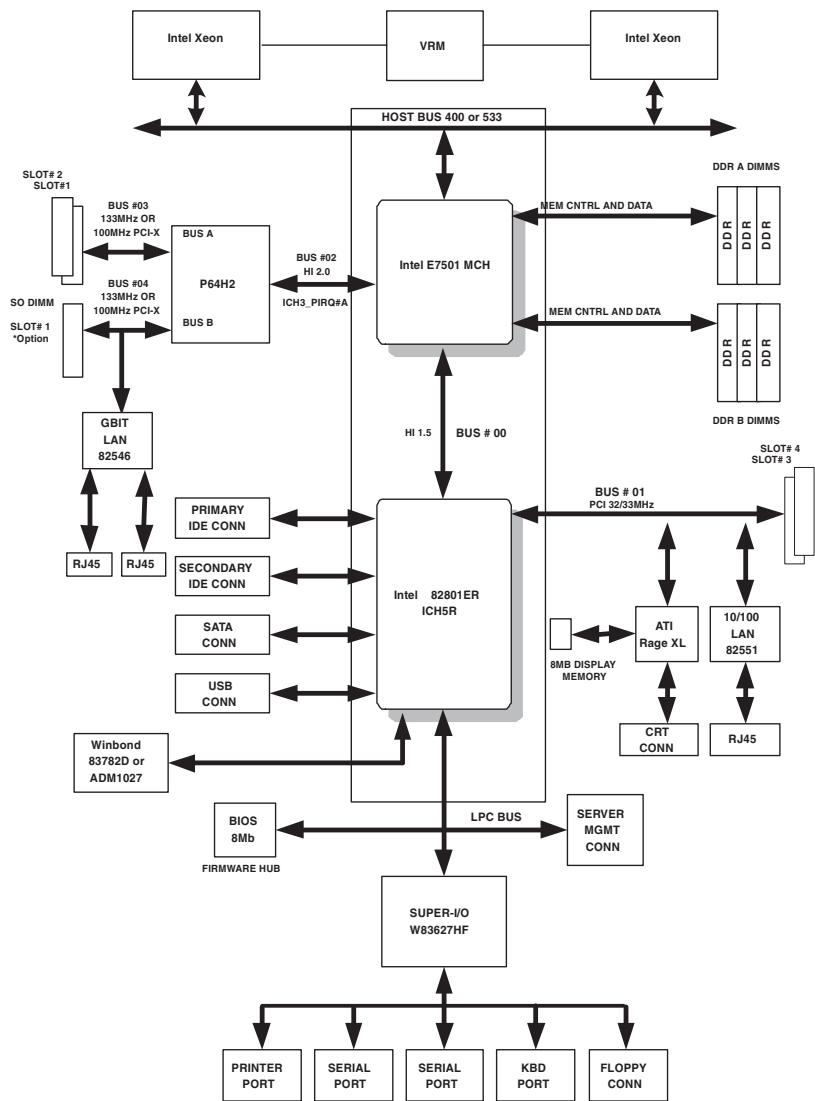
B2735G21U4H



1	Floppy disk drive	8	Riser card
2	LED control board	9	Power connector
3	Slim CD-ROM drive	10	Memory slots
4	Fan bracket	11	EPS 12V 400W power supply
5	S-ATA connector	12	Processor sockets
6	IDE connector	13	Front panel cable
7	FDD connector	14	4-port ultra320 SCSI back-plane

1.5 About the product

Block diagram



Chapter 2: Setting up

2.1 Before you begin

This chapter explains how to install motherboard components including CPUs, memory modules, and PCI card. There are also instructions in this section for installing S-ATA, SCSI and IDE hard drives.

Careful attention should be given to the precautions mentioned in this section when setting up your system.

2.1.1 Work area

Make sure you have a stable, clean working environment. Dust and dirt can get into components and cause malfunctions. Use containers to keep small components separated. Putting all small components in separate containers prevents them from becoming lost. Adequate lighting and proper tools can prevent you from accidentally damaging the internal components.

2.1.2 Tools

The following tools will be required to complete the installations described in this chapter.

- A cross head (Phillips) screwdriver
- A grounding strap and/or anti static pad

Most of the electrical and mechanical connectors in your system can be disconnected using your fingers. It is recommended that you do not use needle-nosed pliers to remove connectors as these can damage the soft metal or plastic parts of the connectors.

2.1 Before you begin

2.1.3 Precautions

Components and electronic circuit boards can be damaged by static electricity. Working on a system that is connected to a power supply can be extremely dangerous. Follow the guidelines below to avoid damage to the Transport GX21 or injury to yourself.

- Ground yourself properly before removing the top cover of the system. Unplug the power from the power supply and then touch a safely grounded object to release static charge (i.e. power supply case). If available, wear a grounded wrist strap. Alternatively, discharge any static electricity by touching the bare metal chassis of the unit case, or the bare metal body of any other grounded appliance.
- Avoid touching motherboard components, IC chips, connectors, memory modules, and leads.
- The motherboard is pre-installed in the system. When removing the motherboard, always place it on a grounded anti-static surface until you are ready to reinstall it.
- Hold electronic circuit boards by the edges only. Do not touch the components on the board unless it is necessary to do so. Do not flex or stress circuit boards.
- Leave all components inside the static-proof packaging that they ship with until they are ready for installation.
- After replacing optional devices, make sure all screws, springs, or other small parts are in place and are not left loose inside the case. Metallic parts or metal flakes can cause electrical shorts.
- Always use the correct size screws and fixings when installing or replacing components.

Note: All connectors are designed to fit one way only, no force should be required to make a connection.

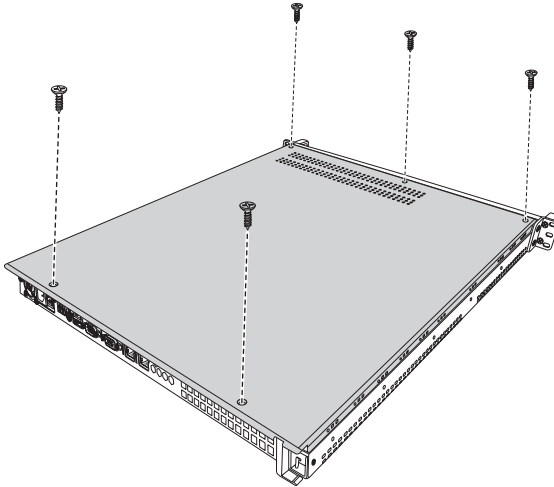
2.2 Installing motherboard components

This section describes how to install CPUs, memory modules and PCI card.

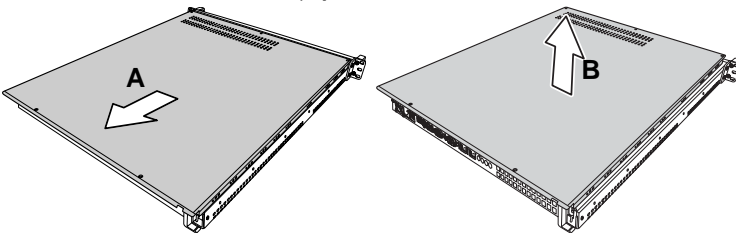
2.2.1 Removing the chassis cover

Follow these instructions to remove the Transport GX21 (B2735) chassis cover. This step is required before any other procedures in this chapter can be undertaken.

1. Remove the six screws that secure the chassis cover.



2. Slide the cover in the direction of the arrow (A) and then lift the cover off (B).

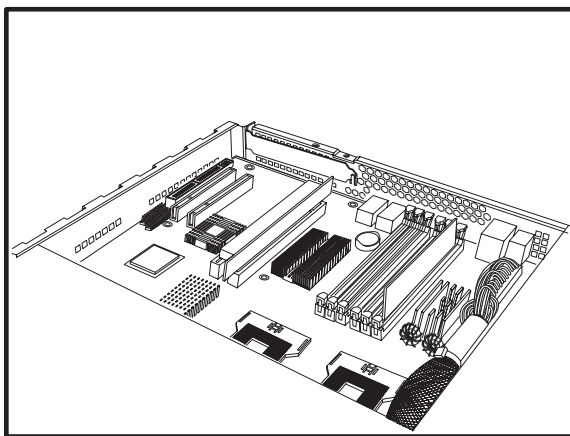


2.2 Installing motherboard components

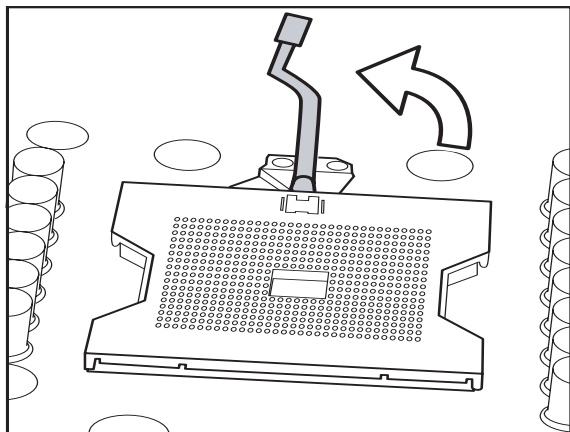
2.2.2 Installing CPUs

This section describes how to install Intel® Xeon processors and heatsinks in your Transport GX21 (B2735) system. This section applies to all models.

1. Remove the chassis cover as described in section 2.2.1 *Removing the chassis cover*.
2. Locate the CPU sockets on the motherboard as shown below.

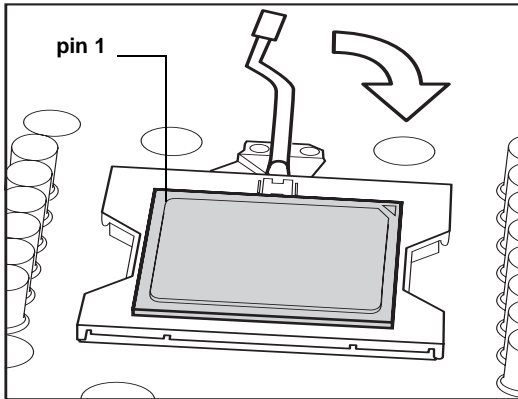


3. Lift the CPU locking lever as shown below.

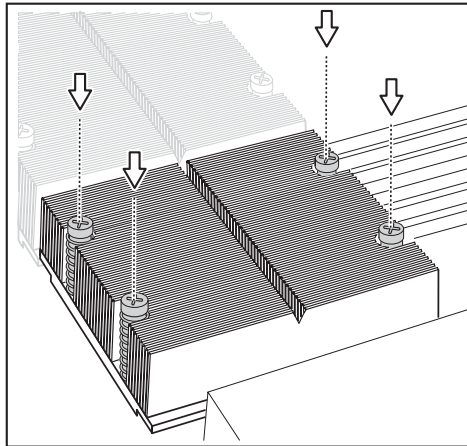


2.2 Installing motherboard components

4. Place the CPU in the CPU socket, ensuring that pin 1 is located as shown in the following illustration.



5. Press the CPU locking lever back down to secure the CPU in the socket.
6. Repeat steps three to five for the second CPU.
7. Apply thermal grease to the top of the CPUs and place the CPU heatsinks on the CPUs.
8. Tighten the four screws to secure the heatsinks in place as shown below.



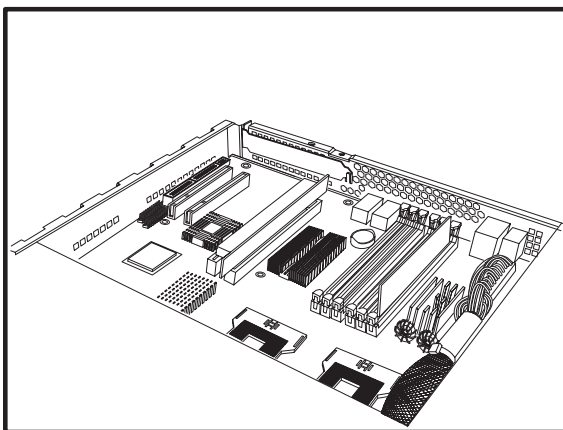
Note: CPU heatsinks must be removed to install or remove memory modules.

2.2 Installing motherboard components

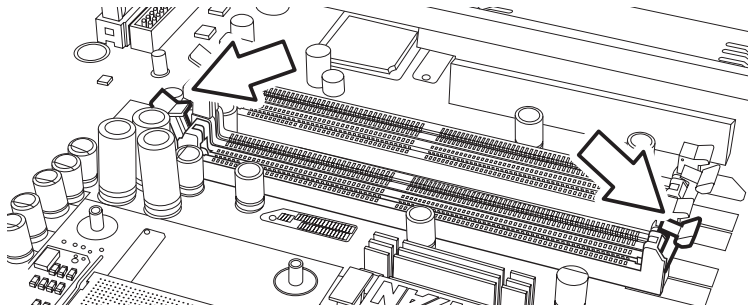
2.2.3 Installing memory

Follow the instructions in this section to install memory modules in your Transport GX21 (B2735) system.

1. Remove the chassis cover as described in section 2.2.1 *Removing the chassis cover*.
2. Locate the memory slots on the motherboard.



3. Press the memory slot locking levers in the direction of the arrows as shown below.

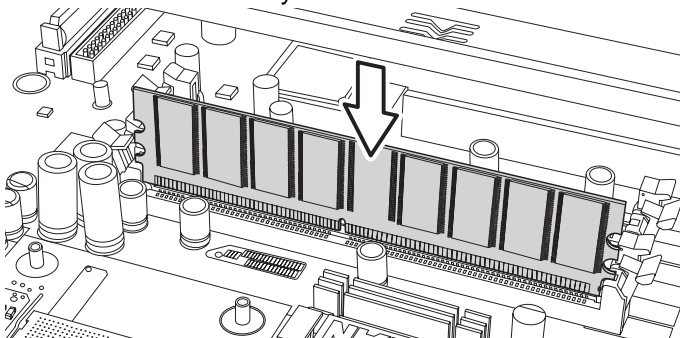


Note: It is not possible to move the memory slot locking levers without first removing the CPU heatsinks.

4. Align the memory module with the slot. The module will fit only one way in the slot. Ensure that indentations in the memory module line up with corresponding notches in the memory slot.

2.2 Installing motherboard components

5. Insert the memory module into the slot as shown.

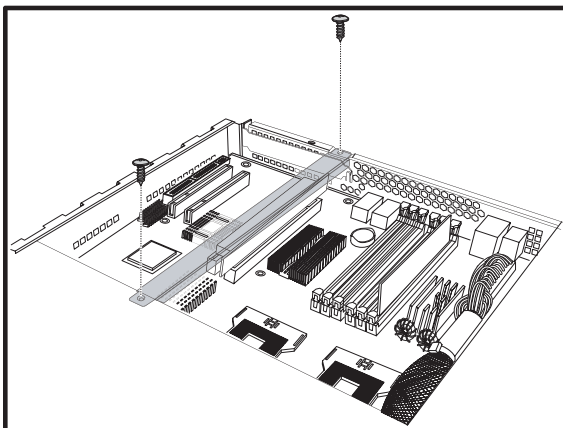


6. Ensure that the locking levers are firmly in place and that the memory module is properly seated in the slot.

2.2.4 Installing a PCI card

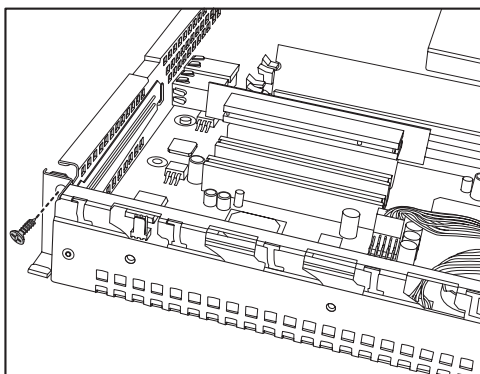
Follow the instructions in this section to install a PCI card in your Transport GX21 (B2735) system.

1. Remove the chassis cover as described in section 2.2.1 *Removing the chassis cover*.
2. Remove the PCI retention bar.

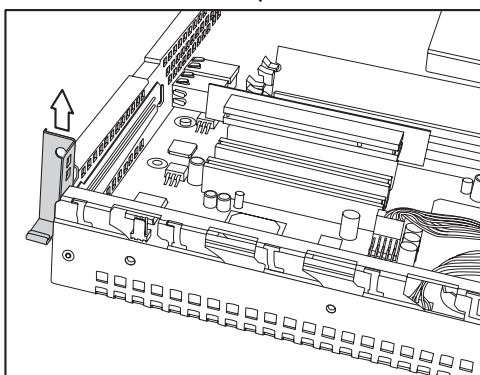


2.2 Installing motherboard components

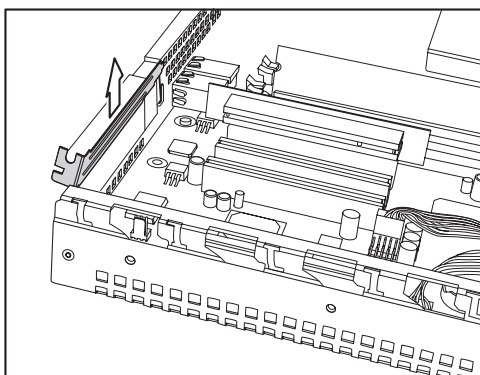
3. Remove the screw securing the PCI faceplate to the chassis.



4. Slide the PCI card clamp out as shown.

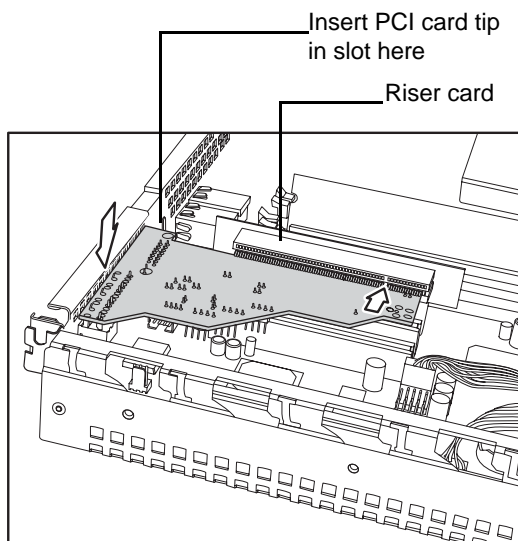


5. Slide the dust cover out.

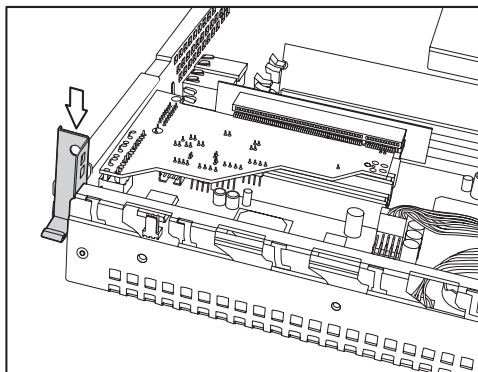


2.2 Installing motherboard components

6. Press the PCI card into place in the slot on the riser card. Ensure that the card is seated properly in the slot on the riser card and that the riser card is properly seated in its slot on the motherboard.

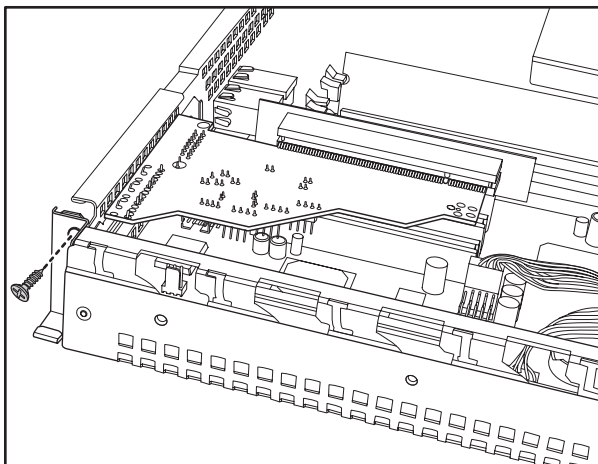


7. Reinsert the PCI card clamp.



2.2 Installing motherboard components

8. Insert the screw to secure the PCI card to the chassis.



2.3 Installing a hard drive

Follow these instructions to install various different types of hard drives in your system.

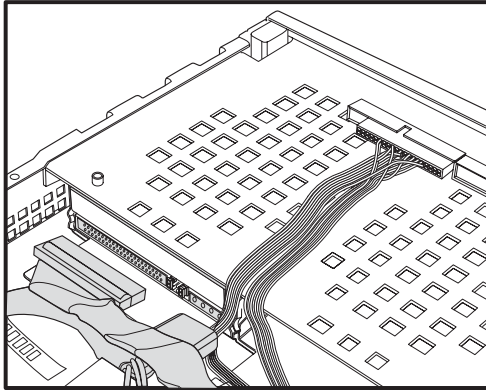
2.3.1 Installing internal hard drives (B2735G21S2)

This **B2735G21S2** can support internal IDE or S-SATA hard drives.

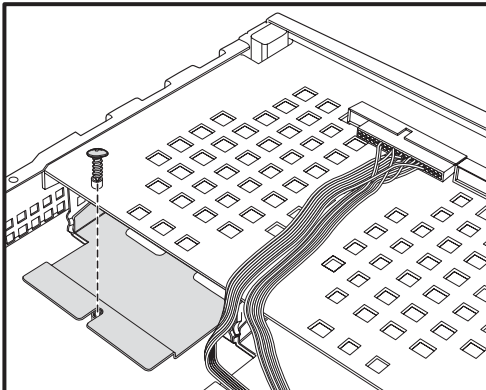
2.3.1.1 Installing an IDE hard drive

Follow these instructions to instal an internal IDE hard drive in your **B2735G21S2** system.

1. Remove the chassis cover as described in section 2.2.1 *Removing the chassis cover*.
2. If you are replacing an existing IDE hard drive, remove the power and data cables from it.

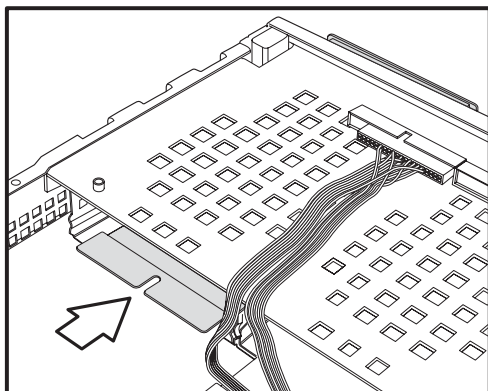


3. Remove the screw securing the HDD tray to the chassis.

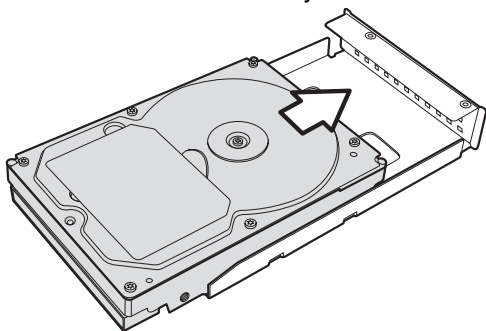


2.3 Installing a hard drive

4. Slide the HDD tray out of the chassis.

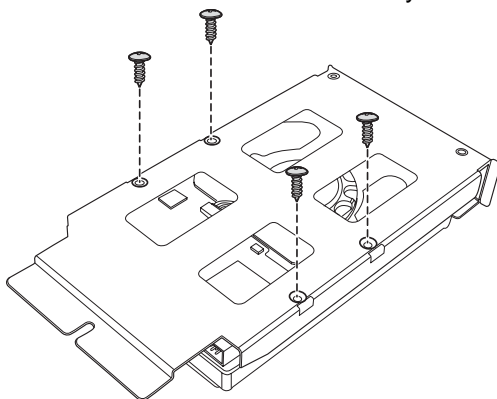


5. Place a new HDD in the tray and slide it to the front.



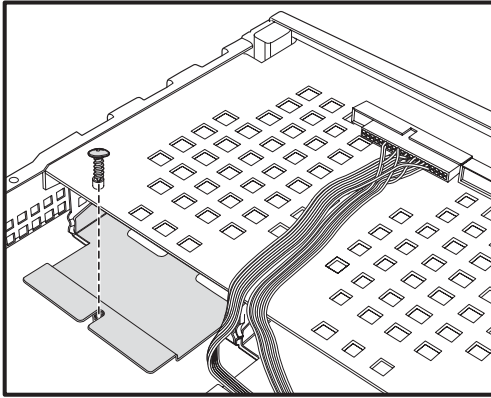
Note: If an you are replacing an existing hard disk you will need to remove the 4 screws securing it to the tray and remove it.

6. Secure the new disk drive in the tray with 4 screws.

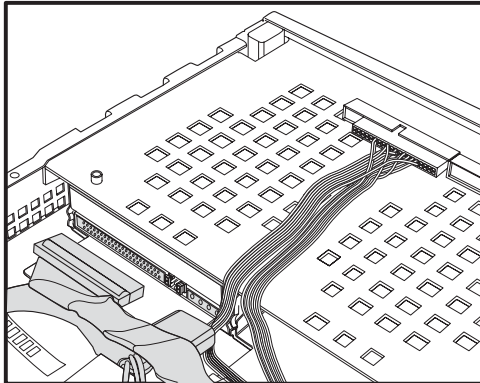


2.3 Installing a hard drive

7. Reinsert the HDD tray and secure it to the chassis with a screw.



8. Connect the IDE data cable and power cable to the HDD.



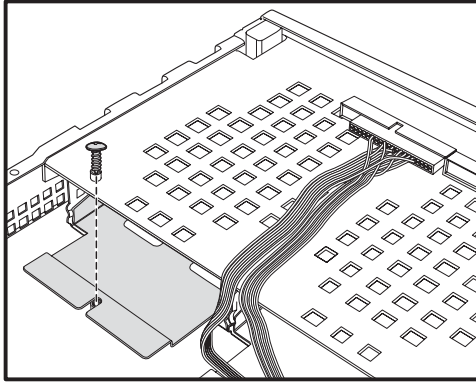
2.3.1.2 Installing an internal S-ATA hard drive

Follow these instructions to install an internal S-ATA hard drive in your **B2735G21S2** system.

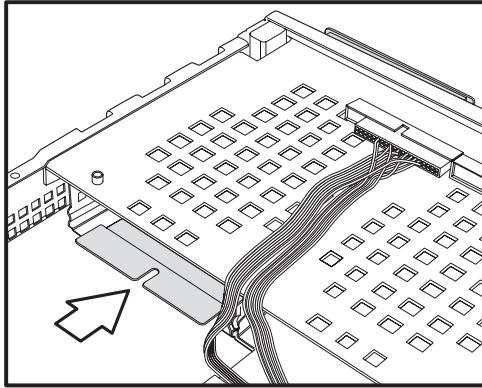
1. Remove the chassis cover as described in section 2.2.1 *Removing the chassis cover*.
2. If you are replacing an existing S-ATA hard drive, remove the power and data cables from it.

2.3 Installing a hard drive

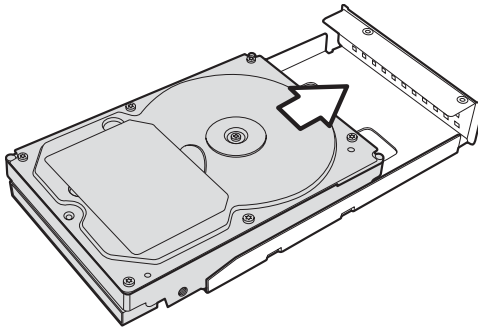
3. Remove the screw securing the HDD tray to the chassis.



4. Slide the HDD tray out of the chassis.



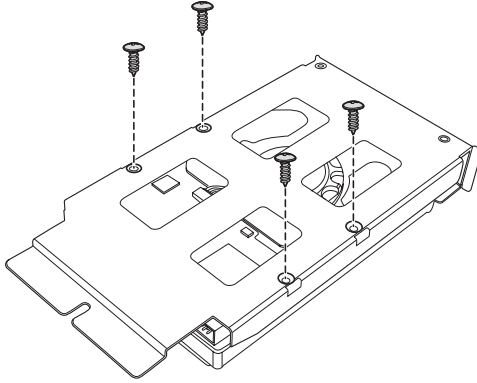
5. Place a new HDD in the tray and slide it to the front.



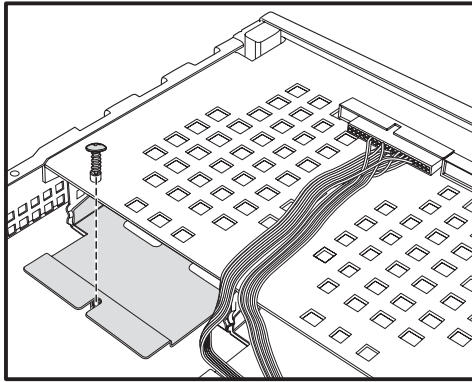
Note: If an you are replacing an existing hard disk you will need to remove the 4 screws securing it to the tray and remove it.

2.3 Installing a hard drive

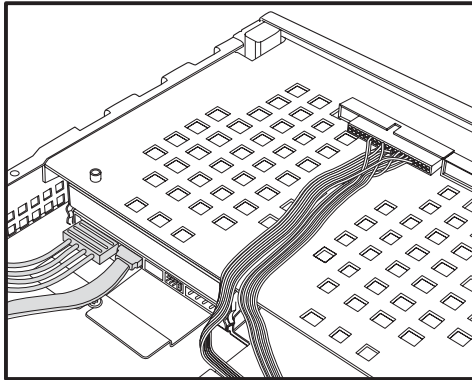
6. Secure the new disk drive in the tray with 4 screws.



7. Reinsert the HDD tray and secure it to the chassis with a screw.



8. Connect the S-ATA data cable and power cable to the HDD.

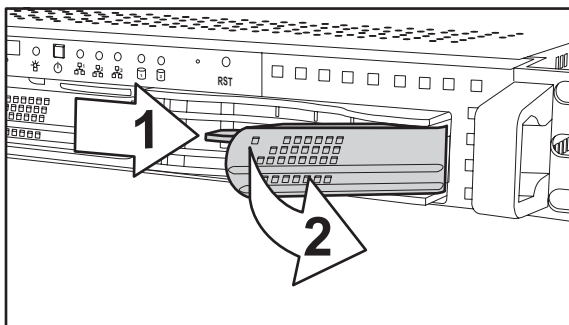


2.3 Installing a hard drive

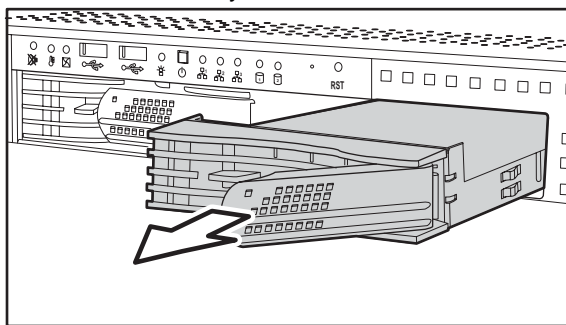
2.3.2 Installing an external S-ATA hard drive (B2735G21S4H)

Follow these instructions to install an external S-ATA hard drive in your **B2735G21S4H** system.

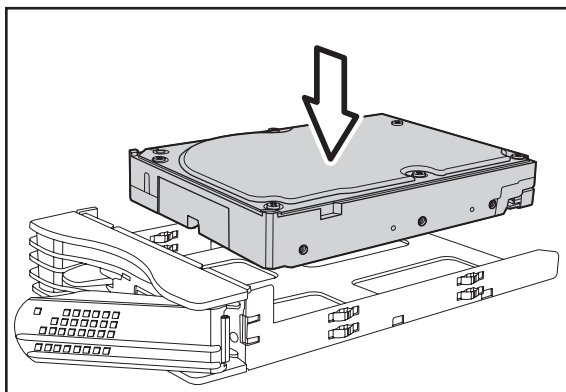
1. Remove the chassis cover as described in section 2.2.1 *Removing the chassis cover*.
2. Press the drive bay locking latch in the direction of the arrow (1) and pull the locking lever open (2).



3. Slide the drive bay out.



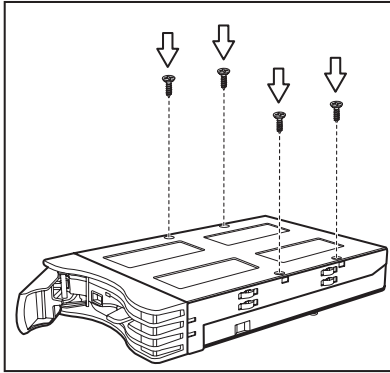
4. Place a S-ATA drive in the drive bay.



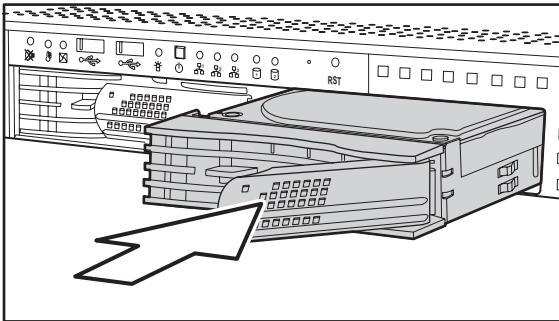
2.3 Installing a hard drive

Note: If you are replacing an existing HDD, you will need to remove the four screws that secure it in the drive bay and remove it.

5. Insert four screws to secure the new unit in the drive bay.



6. Reinsert the drive bay into the chassis. Ensure that the rear connector of the new drive is firmly seated in the backplane.



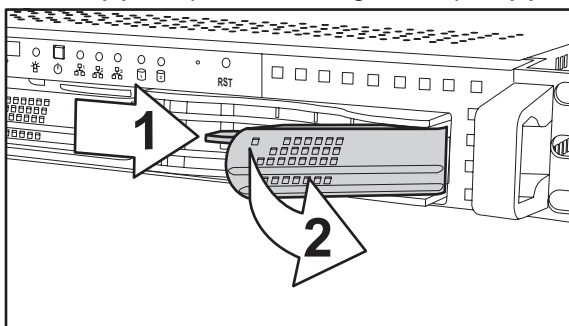
2.3.3 Installing an external SCSI hard drive (B2735G21U4H)

Follow these instructions to install an external SCSI hard drive in your **B2735G21U4H** system.

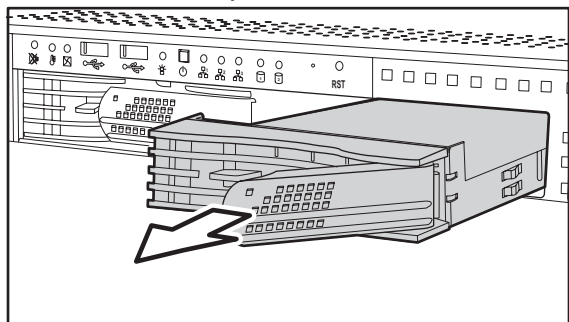
1. Remove the chassis cover as described in section 2.2.1 *Removing the chassis cover.*

2.3 Installing a hard drive

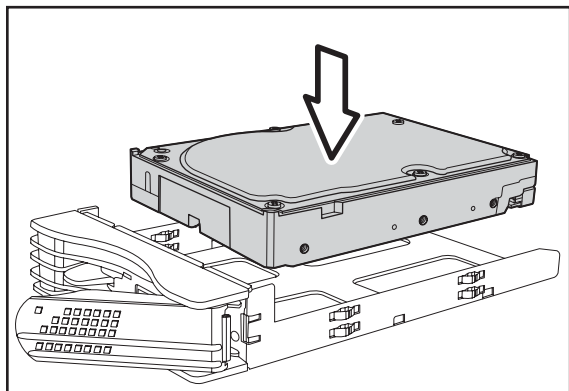
2. Press the drive bay locking latch in the direction of the arrow (1) and pull the locking lever open (2).



3. Slide the drive bay out.



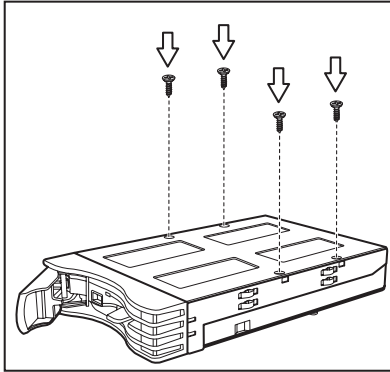
4. Insert a SCSI hard drive in the drive bay.



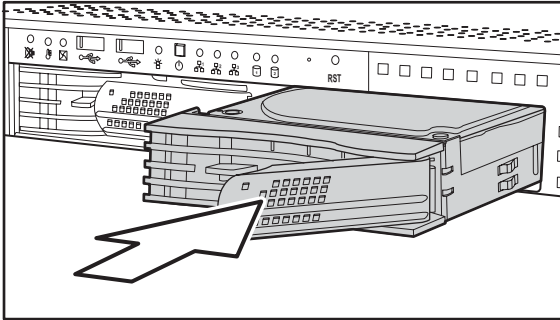
Note: If you are replacing an existing HDD, you will need to remove the four screws that secure it in the drive bay and remove it.

2.3 Installing a hard drive

5. Insert four screws to secure the new unit in the drive bay.



6. Reinsert the drive bay into the chassis. Ensure that the rear connector of the new drive is firmly seated in the backplane.



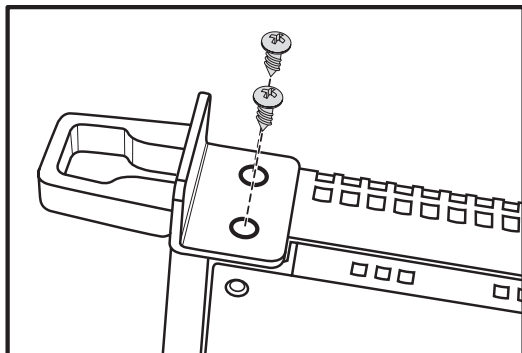
2.4 Rack mounting

2.4 Rack mounting

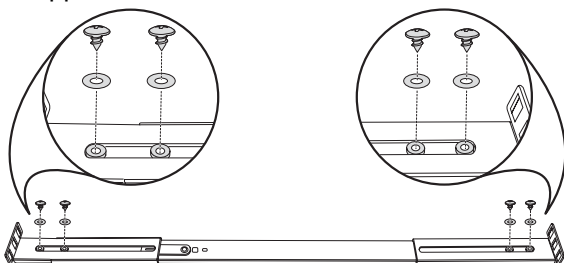
Follow these instructions to mount the Transport GX21 (B2735) into an industry standard 19" rack.

Note: Before mounting the Transport GX21 in a rack, ensure that all internal components have been installed and that the unit has been fully tested. Maintenance can be performed on the unit while in a rack but it is preferable to install the device in a fully operational condition.

1. Screw the mounting ears to the Transport GX21 as shown using 4 screws from the supplied nuts, screws and washers kit.



2. Screw the sliding rail mounting brackets to the sliding rails as shown, using the short black screws from the supplied nuts, screws and washers kit.



Note: Ensure that the brackets with the cut away section (to accommodate the handles

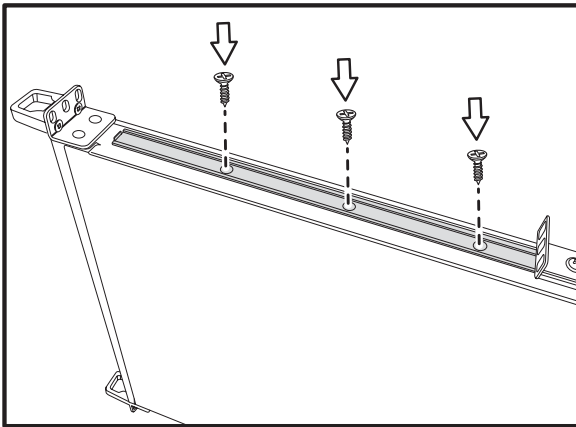
2.4 Rack mounting

on the front of the unit) are fixed to the front end of the rail.

3. Fully extend the sliding rails until they lock.

Note: Do not tighten the brackets to the rails as you will need to adjust their position later.

4. Screw each sliding rail to the side of the Transport GX21 as shown. You will need 3 short, silver colored screws from the supplied nuts, screws and washers kit, for each rail.

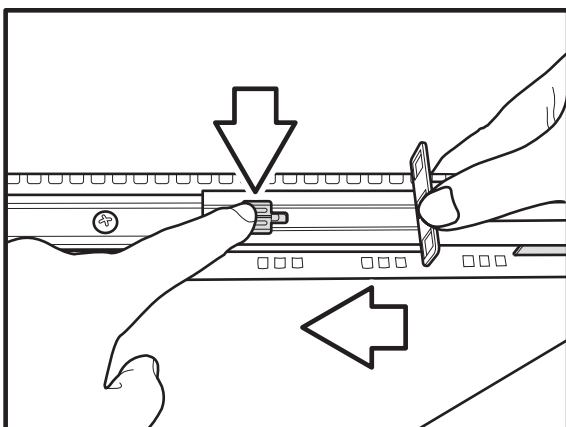


5. Return the sliding rails to their shortest position.

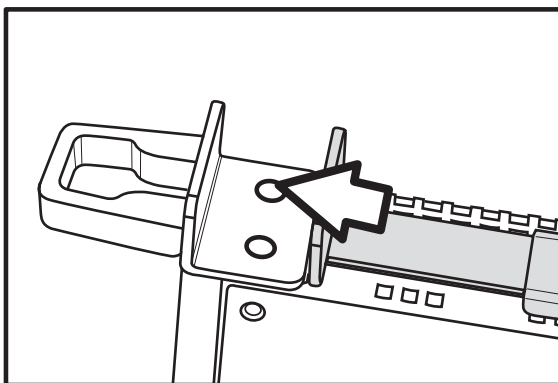
Note: When fully extended, the sliding rails will lock. The release mechanism is located on the sliding rail as shown. Press the

2.4 Rack mounting

release mechanism while pushing the sliding rails to shorten them.



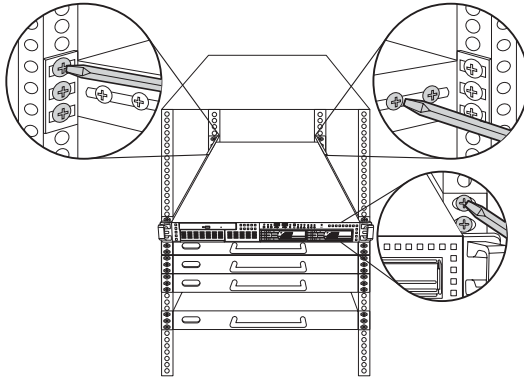
6. With the rails in their shortest position, adjust both front mounting brackets so that they are flush with the front of the unit.



7. Accurately measure the depth of your rack and adjust the rear brackets accordingly.
8. When all brackets are positioned correctly, tighten them.

2.4 Rack mounting

9. Lift the unit into place in the rack and screw it into place as shown.



Note: To avoid injury, it is strongly recommended that two people lift the Transport GX21 into place while a third person screw it to the rack.

2.4 Rack mounting

Chapter 3: Replacing pre-installed components

3.1 Introduction

This chapter describes how to replace all the pre-installed components of your Transport GX21 (B2735), including CPU, PCI card, riser card, memory modules, motherboard, CD-ROM drive, floppy disk drive and LED control board. There is also a section covering the replacement of the 4 port S-ATA backplane (B2735G21S4H only), and a section covering the replacement of the 4 port SCSI back plane (B2735G21U4H only).

Before you attempt to replace any components, make sure you have read section 2.1 *Before you begin*, in chapter 2, which describes the precautions you need to take and the tools you will require.

3.2 Replacing motherboard components

Follow these instructions to remove motherboard components and replace the motherboard.

3.2.1 Disconnecting all motherboard cables

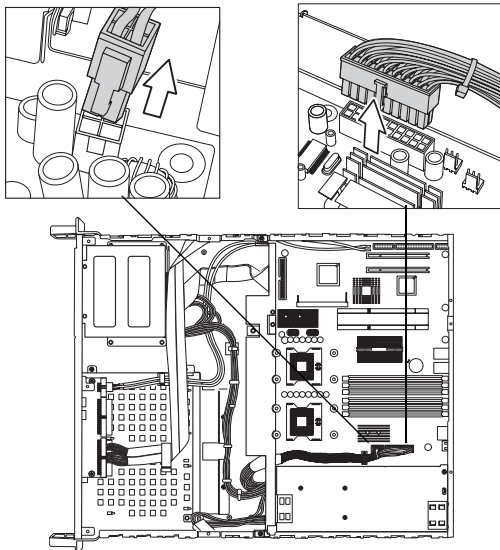
When replacing the motherboard or certain motherboard components, it may be necessary to remove cables connected to the motherboard. Follow these instructions to remove all motherboard cabling. See section *Technical support* in the Appendix for detailed diagrams of cable locations.

3.2 Replacing motherboard components

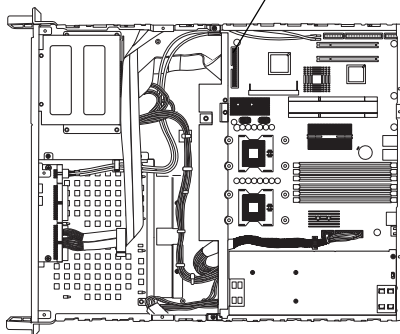
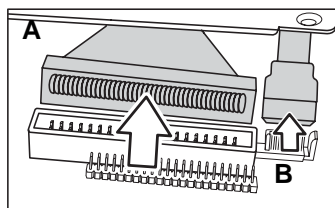
1. Disconnect ATX power cables.

EPS 12V power

Main power



2. Disconnect CD-ROM drive cable (A) (all models) and S-ATA hard drive cable (B) (B2735G21S2 only).



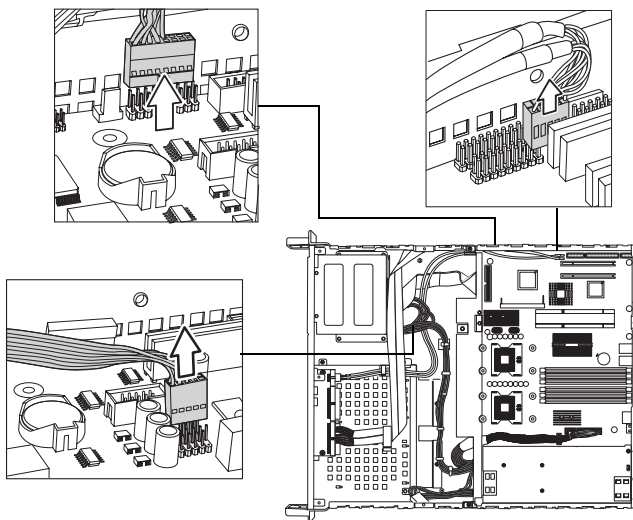
3.2 Replacing motherboard components

Note: If there is FDD or IDE HDD installed in the bay beneath the CD-ROM drive, you will have to disconnect those cables too before you can remove the motherboard.

3. Disconnect front panel LED and USB connectors.

Front panel LED connector

USB connector



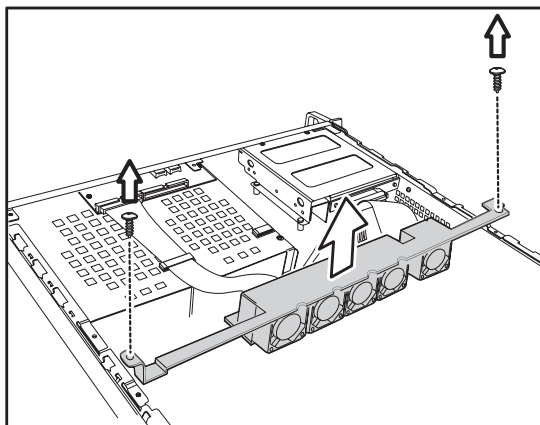
3.2 Replacing motherboard components

3.2.2 Replacing the motherboard

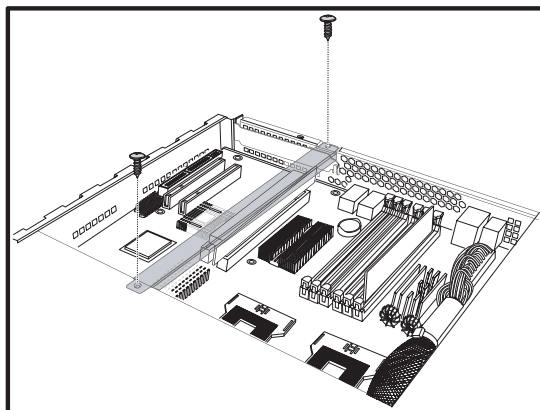
Follow these instructions to remove the motherboard from your Transport GX21 (B2735).

Note: Before removing the motherboard you must remove all cable connections to the motherboard. See section 3.2.1 *Disconnecting all motherboard cables* for details on how to do this.

1. Remove the fan assembly bracket from the chassis.

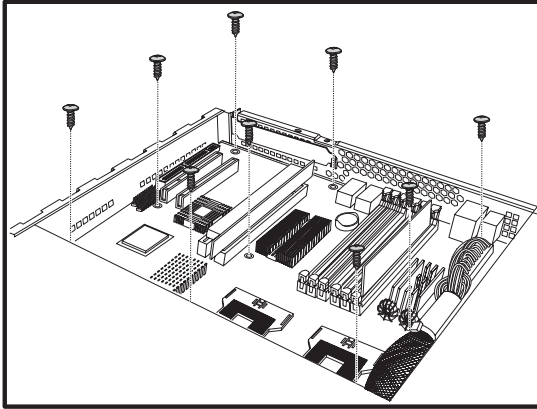


2. Remove the PCI retention bar.



3.3 Replacing the CD-ROM drive

3. Remove the nine screws that secure the motherboard to the chassis.



4. Remove the motherboard from the chassis.

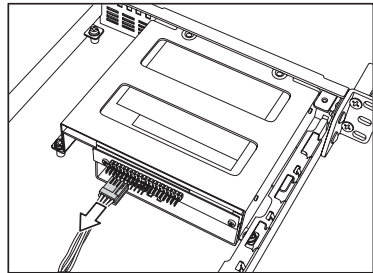
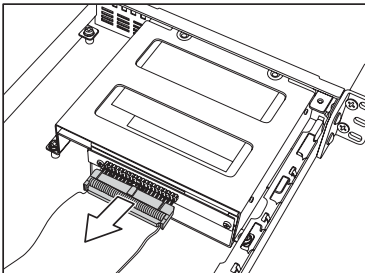
3.3 Replacing the CD-ROM drive

This section describes how to remove and replace the CD-ROM drive in your Transport GX21 (B2735) system.

3.3.1 Replacing the slim CD-ROM drive (B2735G21S2)

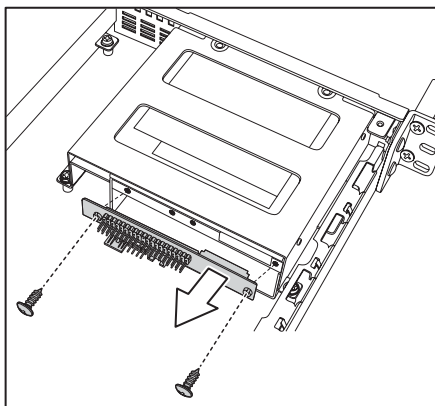
Follow these instructions to replace the slim CD-ROM drive in your **B2735G21S2** system.

1. Remove the chassis cover as described in section 2.2.1 *Removing the chassis cover*.
2. Locate the drive bay housing the FDD and slim CD-ROM drive and remove power and data cables from both.

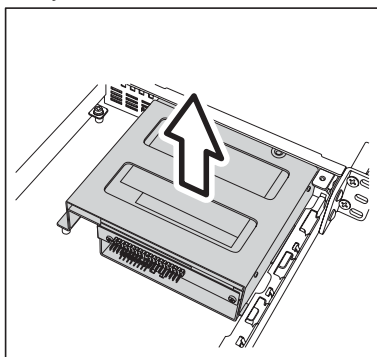
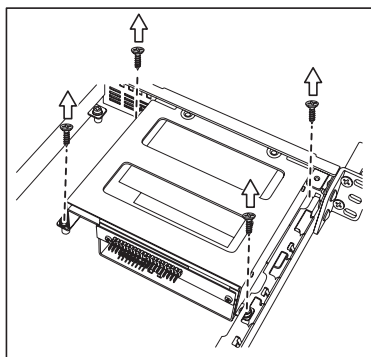


3.3 Replacing the CD-ROM drive

3. Remove the two screws that secure the CD-ROM back-plane to the CD-ROM drive.



4. Remove the four screws that secure the drive bay to the chassis and lift the drive bay free.



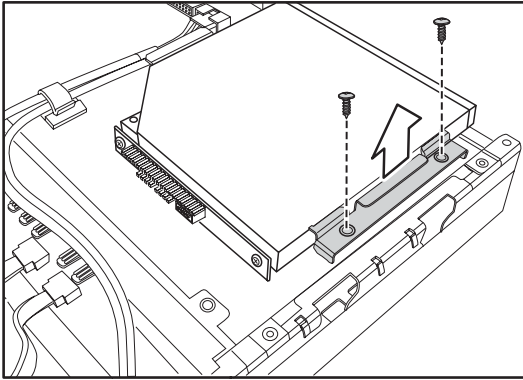
5. Slide the slim CD-ROM from the drive bay.

3.3 Replacing the CD-ROM drive

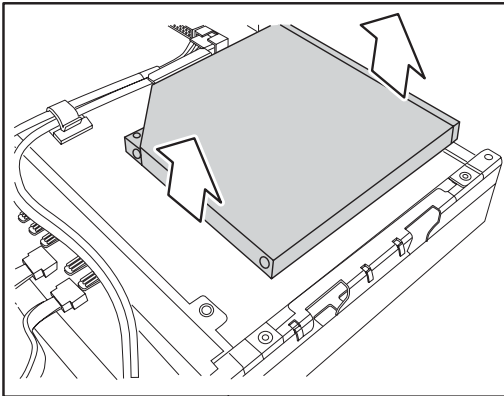
3.3.2 Replacing the CD-ROM drive (B2735G21U4H/B2735G21S4H)

Follow these instructions to replace the slim CD-ROM drive in your **B2735G21U4H** or **B2735G21S4H** system.

1. Remove the chassis cover as described in section 2.2.1 *Removing the chassis cover*.
2. Remove the power and data cables from the CD-ROM drive.
3. Remove the two screws that secure the CD-ROM bracket to the chassis and lift it free.

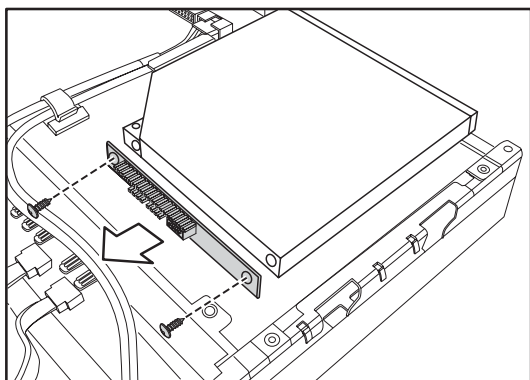


4. Lift the CD-ROM drive from the chassis.



3.3 Replacing the CD-ROM drive

5. Remove the two screws that secure the CD-ROM adapter to the CD-ROM drive and remove it.



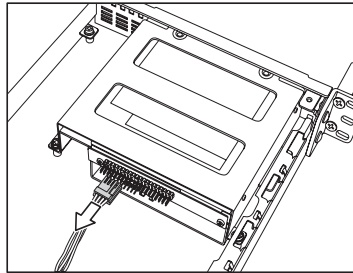
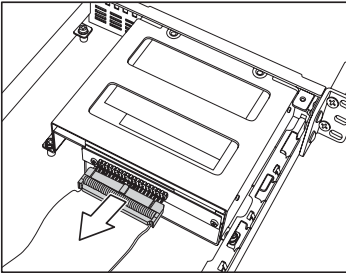
3.4 Replacing the floppy disk drive

This chapter describes how to replace the floppy disk drive.

3.4.1 Replacing the floppy disk drive (B2735G21S2)

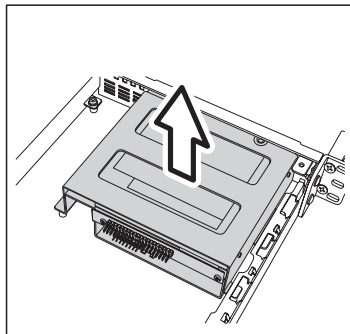
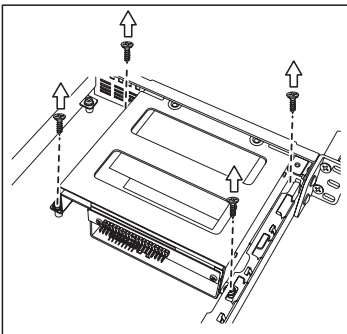
Follow these instructions to replace the FDD in your **B2735G21S2** system.

1. Remove the chassis cover as described in section 2.2.1 *Removing the chassis cover*.
2. Locate the drive bay housing the slim CD-ROM drive and the FDD and remove power and data cables from both.



Note: Unless you are intending to replace the CD-ROM drive, there is no need to remove the CD-ROM backplane.

3. Remove the 4 screws that secure the drive bay to the chassis and lift the drive bay free.



4. Remove the four screws that secure the FDD in the drive bay and slide the unit out of the drive bay.

Note: The FDD bay can be used to house an additional IDE HDD if required.

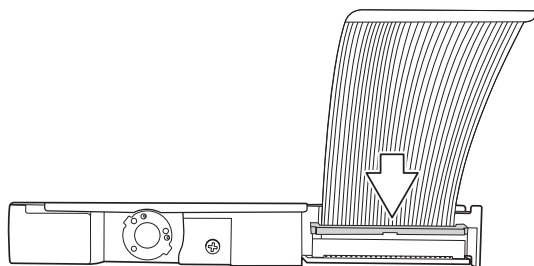
3.4 Replacing the floppy disk drive

3.4.2 Replacing the floppy disk drive (B2735G21S4H/B2735G21U4H).

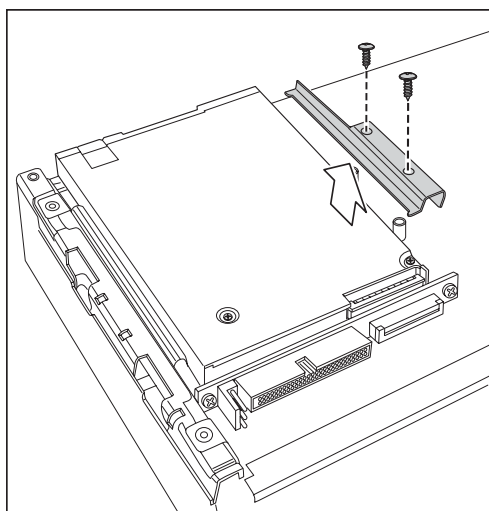
Follow these instructions to replace the slim floppy disk drive in your **B2735G21U4H** or **B2735G21S4H** system.

1. Remove the chassis cover as described in section 2.2.1 *Removing the chassis cover*
2. Remove the ribbon cable from the back of the slim floppy disk drive.

Note: The slim floppy disk drive uses a single ribbon cable that provides it with both power and data. To remove the ribbon cable you must operate the release mechanism as shown below.

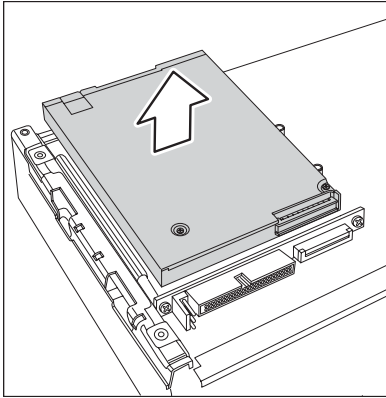


3. Remove the two screws that secure the floppy disk bracket to the chassis and lift it free.



3.5 Replacing the LED control board

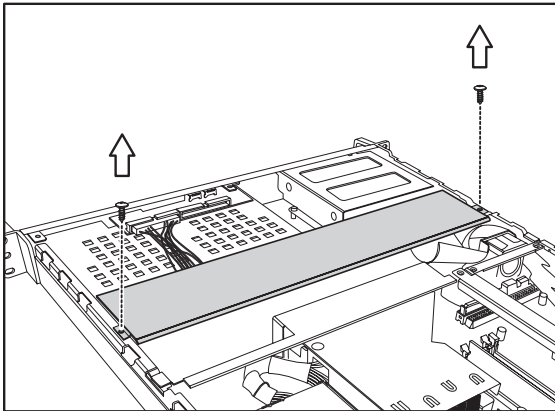
4. Remove the floppy disk drive from the chassis.



3.5 Replacing the LED control board

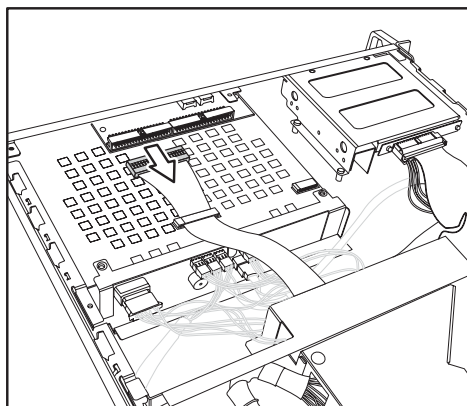
Follow these instructions to replace the LED control board.

1. Remove the two screws that secure the metal retaining plate to the chassis and lift it free.

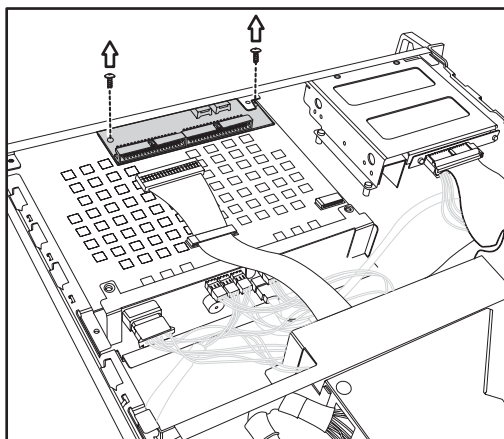


3.6 Replacing the storage backplane

2. Remove the front panel ribbon cable from the rear of the LED control panel.



3. Remove the two screws that secure the LED control panel to the chassis and lift the board free of the chassis.



3.6 Replacing the storage backplane

This section describes how to replace the S-ATA or SCSI backplane on your Transport GX21 (B2735).

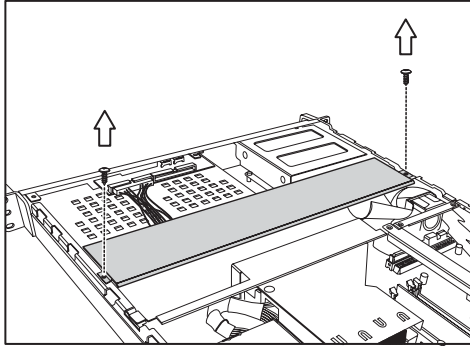
3.6.1 S-ATA backplane (B2735G21S4H)

3.6.1.1 Replacing the S-ATA backplane (B2735G21S4H)

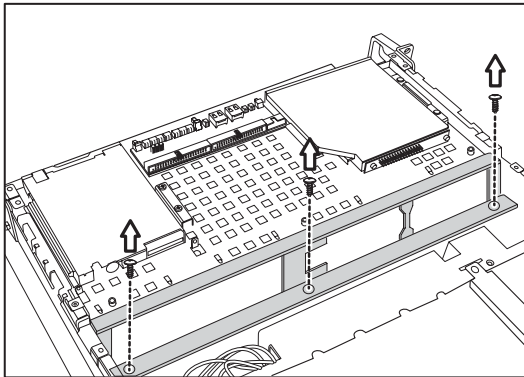
Follow these instructions to replace the S_ATA backplane on your **B2735G21S4H** system.

3.6 Replacing the storage backplane

1. Remove the chassis cover as described in section 2.2.1 *Removing the chassis cover*.
2. Remove the two screws that secure the metal retaining plate to the chassis and lift it free as shown.



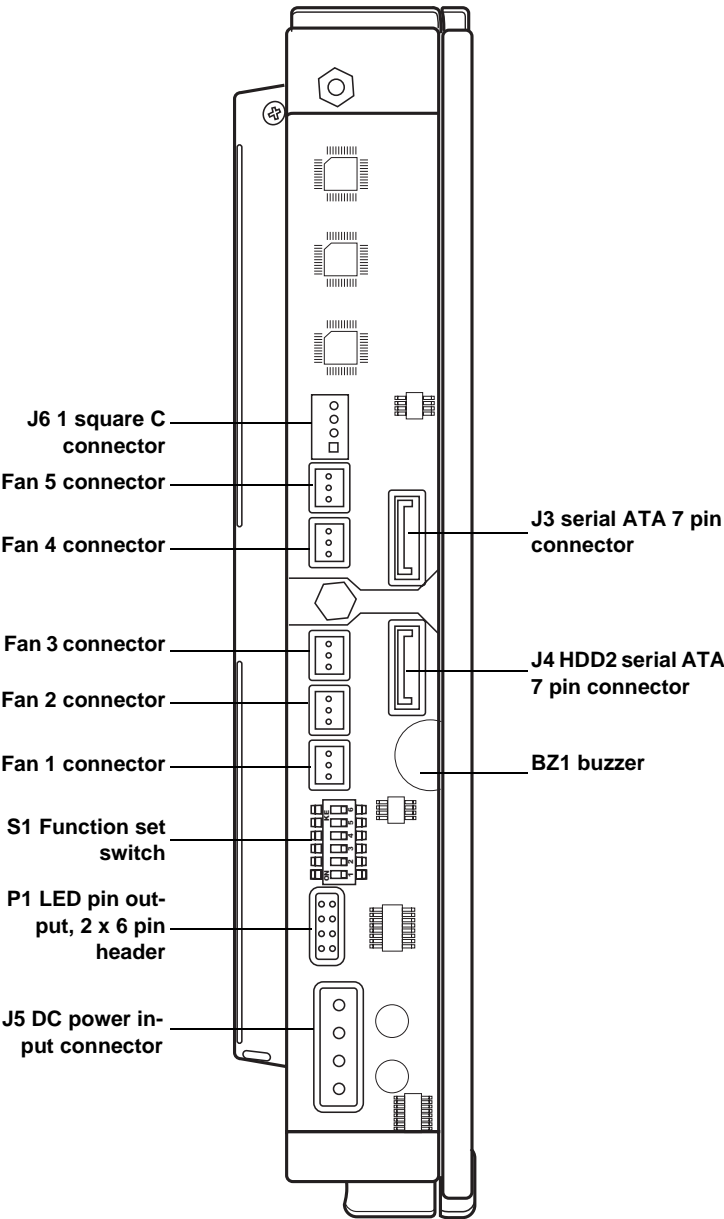
3. Remove all cables connected to the S-ATA backplane, including front panel cable, power cables, and S-ATA data cables.
4. Remove the six screws that secure the S-ATA backplane bracket to the chassis.



5. Remove the S-ATA backplane bracket and backplanes free from the chassis.

3.6 Replacing the storage backplane

3.6.1.2 S-ATA backplane features



Note: *B2735G21S4H* is shipped with two 2-port S-ATA backplanes to support 4 hot-swap S-ATA hard disk drives

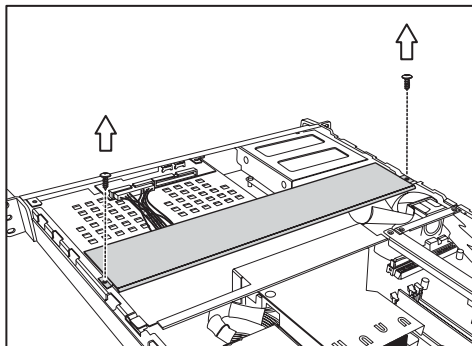
3.6 Replacing the storage backplane

3.6.2 SCSI backplane (B2735G21U4H)

3.6.2.1 Replacing the SCSI backplane (B2735G21U4H)

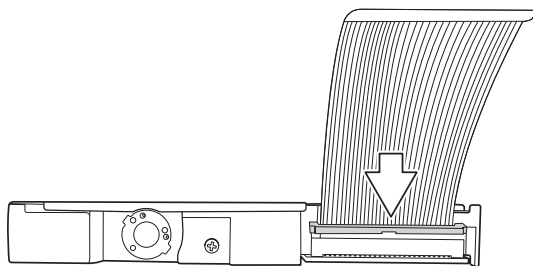
Follow these instructions to replace the SCSI backplane on your **B2735G21U4H** system.

1. Remove the chassis cover as described in section 2.2.1 *Removing the chassis cover*.
2. Remove the two screws that secure the metal retaining plate to the chassis and lift it free as shown.



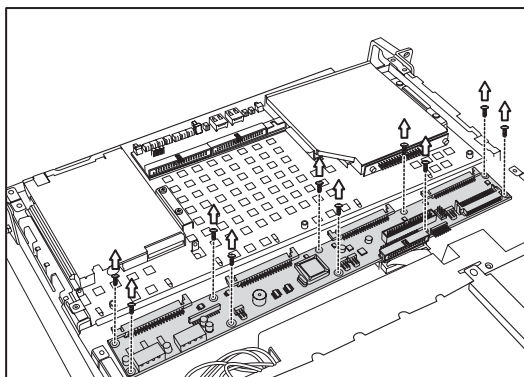
3. Remove all cables connected to the SCSI backplane, including power cables, SCSI cable, and floppy disk drive cable.

Note: The slim floppy disk drive uses a single ribbon cable that provides it with both power and data. To remove the ribbon cable you must operate the release mechanism as shown below.



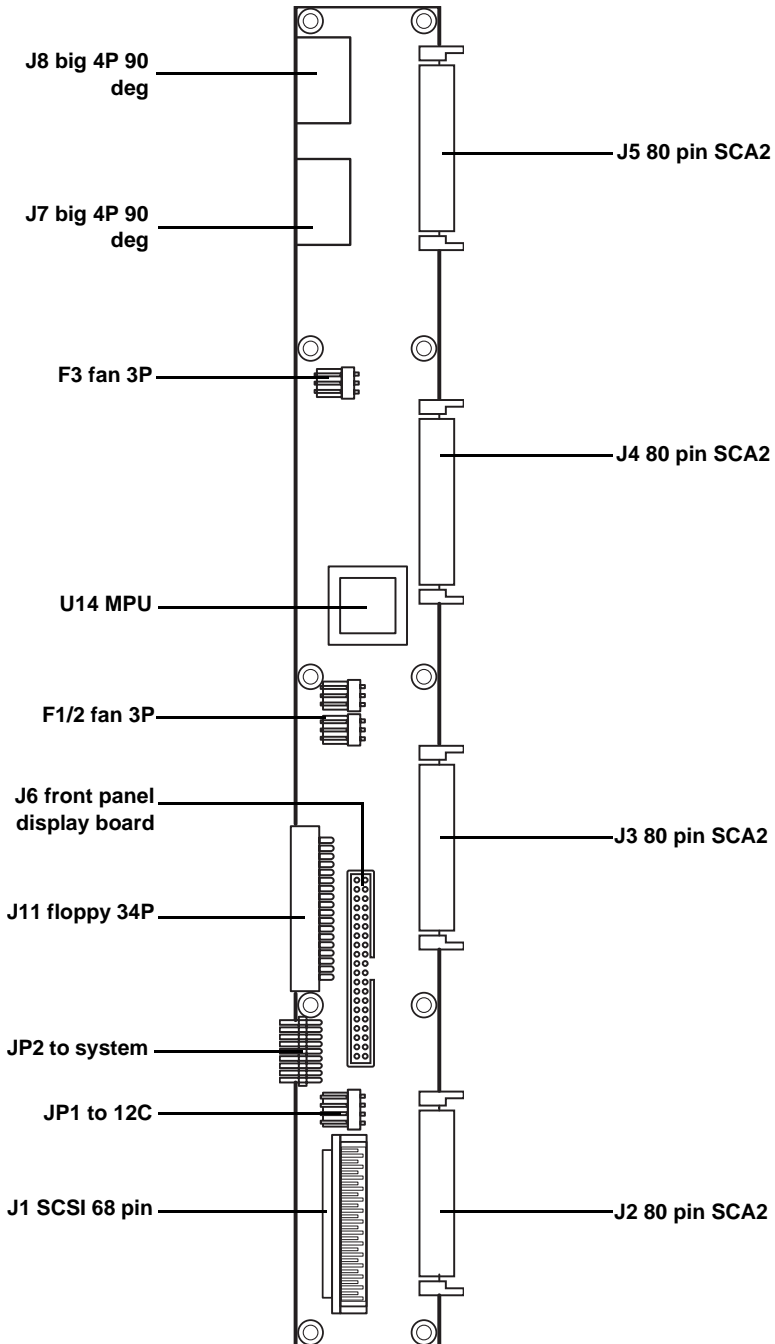
3.6 Replacing the storage backplane

4. Remove the 10 screws that secure the SCSI backplane to the chassis and lift the backplane free.



3.6 Replacing the storage backplane

3.6.2.2 SCSI backplane features

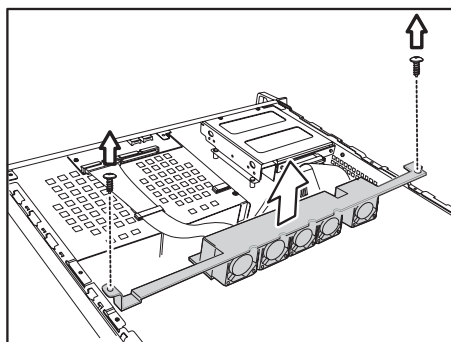


3.7 Replacing the power supply

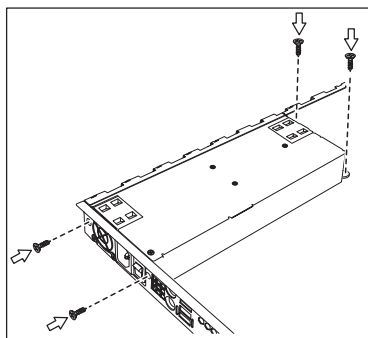
3.7 Replacing the power supply

Follow these instructions to replace the power supply in your Transport GX21 (B2735) system.

1. Remove the chassis cover as described in section 2.2.1 *Removing the chassis cover*.
2. Remove the four screws that secure the fan assembly to the chassis and lift it free.



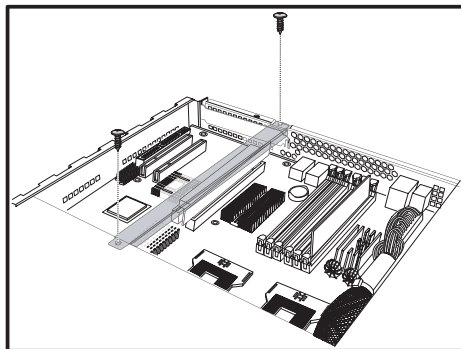
3. Disconnect power cables from the motherboard, HDDs, FDDs, CD-ROM drive and fans. See section 3.4.2 *Disconnecting Cables* for details on how to do this.
4. Remove the four screws that secure the power supply to the chassis and lift the unit free.



3.8 Replacing the cooling fans

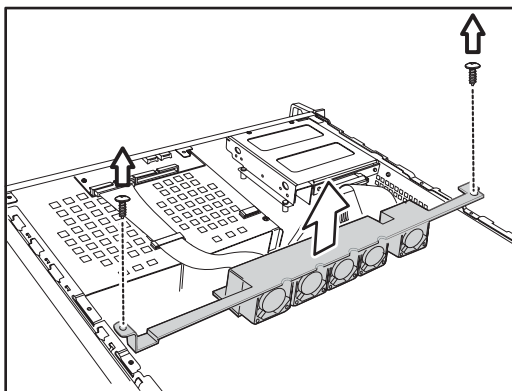
Follow these instructions to replace the cooling fans in your Transport GX21 (B2735) system.

1. Remove the chassis cover as described in section 2.2.1 *Removing the chassis cover*.
2. Remove the PCI retention bar



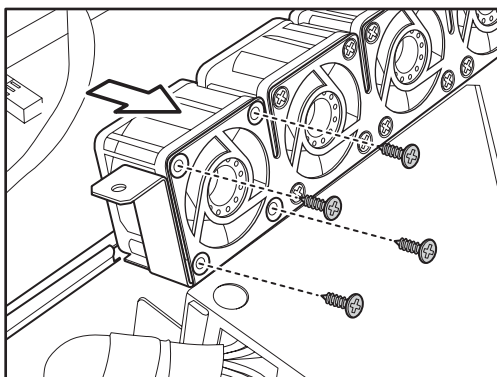
Note: You may need to cut the cable ties that secure the fan power cables before attempting to unplug them.

3. Remove the power cables for the 5 fans from the motherboard.
4. Remove the four screws that secure the fan bracket to the chassis.
5. Lift the fan bracket free of the unit



3.8 Replacing the cooling fans

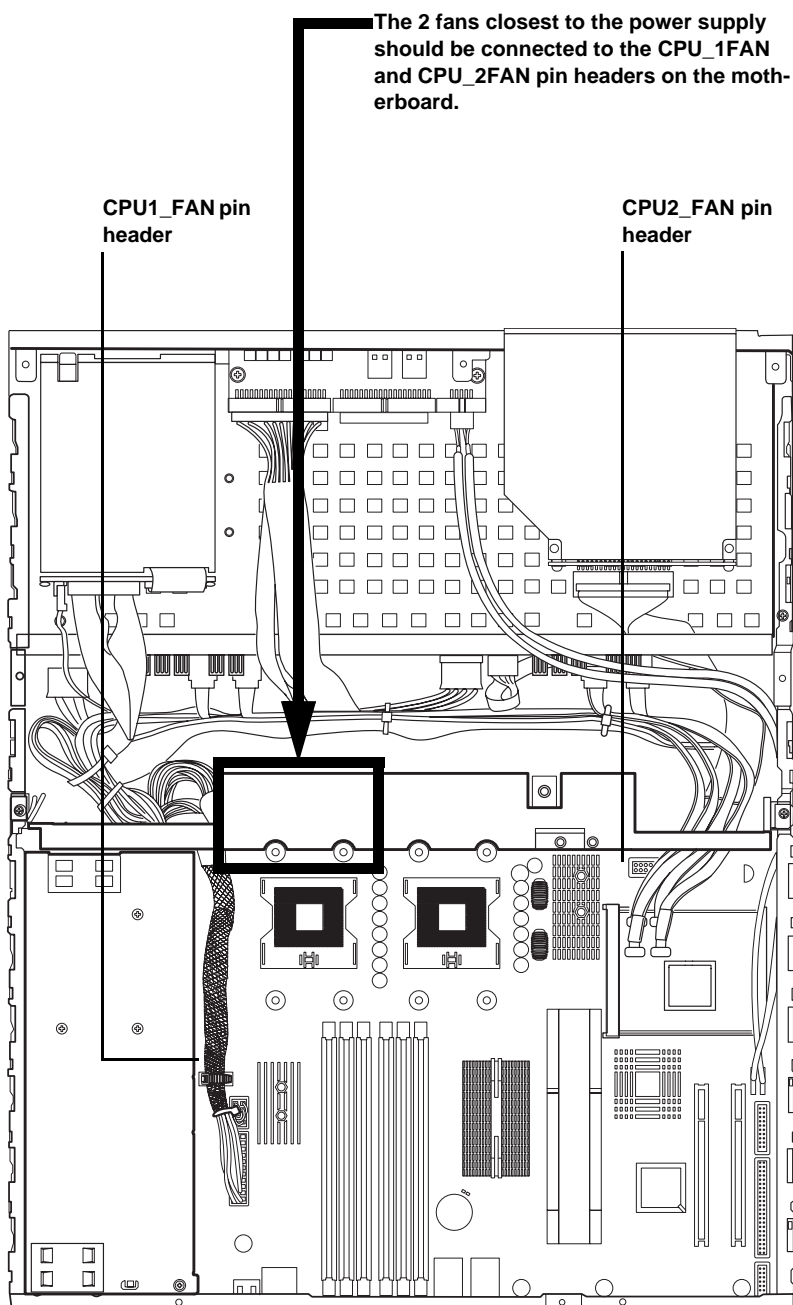
6. Remove the four screws securing each fan to the fan bracket.



Note: The Transport GX21 (B2735) uses two different types of cooling fans which operate at different speeds. The two fans installed nearest the power supply have a peak speed of 15,000 rpm. The remaining 3 fans have a peak speed of 11,500 rpm. The two fans nearest the power supply should be connected to the speed-controllable pin headers (CPU1_FAN and CPU2_FAN) on the mother board. See 3.8.1 *Cooling fan connections*.

3.8 Replacing the cooling fans

3.8.1 Cooling fan connections



3.8 Replacing the cooling fans

BIOS

Introduction

Your Transport GX21 (B2735) system includes a powerful Tiger i7501R S2735 motherboard with AMI BIOS v8.0 on 4 MB flash ROM.

The BIOS is the motherboard's basic input/output system. The BIOS contains all the settings required to control the keyboard, display, disk drives, serial communications, and a number of miscellaneous functions. This section of the appendix describes the various BIOS settings that can be used to configure your system.

BIOS setup utility

With the BIOS setup utility, you can modify BIOS settings and control the features of your system. The setup utility uses a number of menus.

Note: All menus shown in this section are based on a typical system. The actual menus displayed on your screen may look different depending on the hardware and features installed.

To start the BIOS setup utility:

1. Turn on or reboot your system.
2. Press during POST (F4 on remote console) to start the BIOS setup utility

BIOS setup utility

Main Advanced PCI/PnP Boot Security Chipset Exit	
System Overview	
AMIBIOS Version :08.00.09 Build Date :xx/xx/2003 ID :0ABBP006 Processor Type :Intel® Xeon™ CPU x.xx GHz Logical Count : x System Memory Size : xxxx MB System Time [12:59:59] System Date [xxx xx/xx/2003]	Use [Enter], [TAB] or [SHIFT_TAB] to select a field Use [+] or [-] to configure system time. ←→ Select Screen ↑↓ Select item +/- Change option Tab Select field F1 General Help F10 Save and Exit ESC Exit

To select an item:

Use the <Arrow> keys to make a selection.

To display a submenu (a pointer ► marks all submenus)

Use the arrow keys to move the cursor to the required submenu and press <Enter>.

BIOS menu bar

The menu bar at the top of the window lists the following selections:

Menu bar selections

Main	To configure basic system setups
Advanced	Configure advanced chipset options
PCI/PnP	Configure legacy PnP or PCI settings
Boot	Configure system boot order
Security	Configure user and supervisor passwords
Chipset	Configure chipset management features
Exit	Exit setup utility

Note: Options written in **bold type** represent the BIOS setup default.

BIOS legend bar

The following chart describes the legend keys and their functions.

BIOS legend bar

Key	Function
<F1> or <Alt-H>	General help window
<ESC>	Exit current window
←→ arrow keys	Select a different window
↑↓ arrow keys	Move cursor up/down
<Tab> or <Shift-Tab>	Cycle cursor up/down
<Home> or <End>	Move cursor to the top or bottom of the window
<PgUp> or <PgDn>	Move cursor to the next or previous page
<F5> or <->	Select the previous value/setting of the field
<F6>, <+> or <Space>	Select the next value/setting of the field
<F8>	Load fail safe default configuration values
<F9>	Load optimal default configuration values
<F10>	Save and exit
<Enter>	Execute command or select submenu

BIOS main menu

The Main BIOS menu is the first screen that appears when you enter BIOS setup. The menu has two main frames. The left frame displays all the options that can be configured.

"Grayed-out" options cannot be configured, options in blue can be changed.

The right frame displays the key legend. Above the key legend is an area reserved for a text message. When an option is selected in the left frame, it is highlighted in white. Often, a text message will accompany it.

BIOS main menu

Main Advanced PCI/PnP Boot Security Chipset Exit	
System Overview	
AMIBIOS Version :08.00.09 Build Date :xx/xx/2003 ID :0ABBP006 Processor Type :Intel® Xeon™ CPU x.xx GHz Logical Count : x System Memory Size : xxxx MB System Time [12:59:59] System Date [xxx xx/xx/2003]	Use [Enter], [TAB] or [SHIFT_TAB] to select a field Use [+] or [-] to configure system time. ↔ Select Screen ↑↓ Select item +/- Change option Tab Select field F1 General Help F10 Save and Exit ESC Exit

Feature	Option	Description
Main		
System time	HH:MM:SS	Set the system time
System date	MM:DD:YY	Set the system date

BIOS advanced menu

You can select any of the items in the left frame of the screen, such as Super I/O Configuration, to go to the sub menu for that item. You can display an Advanced BIOS Setup option by highlighting it using the <Arrow> keys. All Advanced BIOS Setup options are described in this section. The Advanced BIOS Setup screen is shown below.

BIOS advanced menu

Main Advanced PCI/PnP Boot Security Chipset Exit	
Advanced Settings	
WARNING: Setting wrong values in below sections may cause system malfunction.	Use [Enter], [TAB] or [SHIFT_TAB] to select a field
<ul style="list-style-type: none">▶CPU Configuration▶IDE Configuration▶Floppy Configuration▶Super I/O Configuration▶ACPI Configuration▶DMI Event Log▶Remote Access Configuration▶USB Configuration▶Onboard Devices Configuration▶Hardware Monitor	<p>Use [+] or [-] to configure system time.</p> <p>←→ Select Screen ↑↓ Select item +/- Change option Tab Select field F1 General Help F10 Save and Exit ESC Exit</p>

BIOS advanced menu

Features	Option	Description
Advanced settings		
CPU Configuration	Menu Item	Configure CPU
IDE Configuration	Menu Item	Configure the IDE devices(s)
Floppy Configuration	Menu Item	Configures devices connected to the floppy controller
Super I/O Configuration	Menu Item	Configures devices connected to the Super I/O controller
ACPI Configuration	Menu Item	Section for advanced ACPI configuration
DMI Event Logging	Menu Item	Views and controls event log
Remote Access Configuration	Menu Item	Configures Console Redirect
USB Configuration	Menu Item	Configures USB controller and legacy device support
Onboard devices Configuration	Menu Item	Use this section to Enable/Disable special onboard devices
Hardware monitor	Menu Item	Hardware Monitor and Display

CPU configuration submenu

You can use this screen to change the CPU Settings. Use the up and down <Arrow> keys to select an item. Use the <Plus> and <Minus> keys to change the value of the selected option.

CPU configuration submenu

Main Advanced PCI/PnP Boot Security Chipset Exit	
CPU Configuration submenu	
Manufacturer: Intel Brand String : Intel® Xeon™ CPU x.xx GHz Cache L2 : 512 KB Cache L3 : 0 KB Ratio Status : Unlocked Ratio Actual Value : 15 Ratio CMOS Setting [255] Hyper Threading [Embedded]	Use [Enter], [TAB] or [SHIFT_TAB] to select a field Use [+] or [-] to configure system time. ←→ Select Screen ↑↓ Select item +/- Change option Tab Select field F1 General Help F10 Save and Exit ESC Exit

Feature	Option	Description
Configure advanced CPU settings		
Ratio Status	Unlocked	
Ratio Actual value	xx	
Ratio CMOS Setting	255	Sets the ratio between CPU Core Clock and the FSB frequency. Note: If an invalid ratio is set in CMOS, actual and set point values may differ
Hyper Threading	Enabled Disabled	ENABLE: Enable CPU Hyper-Threading for HT enabled processor(s). DISABLE: Disable CPU Hyper-Threading for HT enabled processor(s).

IDE configuration submenu

You can use this screen to change IDE Configuration Settings. Use the up and down <Arrow> keys to select an item. Use the <Plus> and <Minus> keys to change the value of the selected option.

IDE configuration submenu

Main Advanced PCI/PnP Boot Security Chipset Exit		
IDE Configuration		
IDE Legacy Configuration	[P-ATA Only]	Use [Enter], [TAB] or [SHIFT_TAB] to select a field
S-ATA Running Enhanced Mode	[Yes]	
P-ATA Channel Selection	[Both]	
S-ATA Ports Definition	[P0-3rd/P1-4th]	
Configure S-ATA as RAID	[No]	
▶IDE channel 0 Master	: [xxxx]	Use [+] or [-] to configure system time.
▶IDE channel 0 Slave	: [xxxx]	
▶IDE channel 1 Master	: [xxxx]	
▶IDE channel 1 Slave	: [xxxx]	
▶IDE channel 2 Master	: [xxxx]	
▶IDE channel 2 Slave	: [xxxx]	
▶IDE channel 3 Master	: [xxxx]	
▶IDE channel 3 Slave	: [xxxx]	
Hard Disk Write Protect	[Disable]	←→ Select Screen ↑↓ Select item +/- Change option Tab Select field F1 General Help F10 Save and Exit ESC Exit
IDE Detect Time Out (Sec)	[xx]	
ATA (PI) 80 pin Cable Detection	[Host & Device]	

IDE configuration submenu

Feature	Option	Description
IDE Configuration		
IDE Legacy Configuration	Disabled P-ATA only S-ATA only P-ATA & S-ATA	Select combination you wish to use. Note, only 4 IDE drives can be used at one time, no matter what the combination.
S-ATA Running Enhanced Mode	Yes No	
P-ATA Channel Selection	Primary Secondary Both	
S-ATA Ports Definition	P0-3rd/P1-4th P0-4th/P1-3rd	
Configure S-ATA as RAID	No Yes	
S-ATA port 0/1 Master S-ATA port 0/1 Slave	Both Primary Secondary Disabled	While entering setup, BIOS auto detects the presence of IDE devices. This displays the status of auto detection of IDE devices.
Primary/Secondary Master Primary/Secondary Slave	Auto User ATAPI Removable CD-ROM None	Auto - To determine the IDE drive type by system BIOS User - To set IDE drive type by user ATAPI Removable - Read/write media (e.g... IDE zip) CD-ROM - Readable CD-ROM drive
Hard Disk Write protect	Disabled Enabled	This option protects the first sector of the IDE HDD from being written
IDE Detect Time Out (Sec)	0, 5, 10,15,.. 35	Configure the time (in seconds) before the BIOS times out when detecting an IDE device

Feature	Option	Description
ATA (PI) 80 pin Cable Detection	Host and Device Host Device	Toggles the detection of 80 wire IDE cables

S-ATA Port/Primary IDE/Secondary IDE configuration submenu

You can use this screen to change SATA Port / Primary IDE / Secondary IDE Configuration Settings. Use the up and down <Arrow> keys to select an item. Use the <Plus> and <Minus> keys to change the value of the selected option.

S-ATA Port/Primary IDE/Secondary IDE Configuration submenu

Main Advanced PCI/PnP Boot Security Chipset Exit		
S-ATA Port 0 IDE Master		Use [Enter], [TAB] or [SHIFT_TAB] to select a field
Device:	[P-ATA Only]	
Type	[Auto]	Use [+] or [-] to configure system time. ←→ Select Screen ↑↓ Select item +/- Change option Tab Select field F1 General Help F10 Save and Exit ESC Exit
LBA/Large Mode	[Auto]	
Block (Multi - Sector transfer)	[Auto]	
PIO Mode	[Auto]	
S.M.A.R.T	[Auto]	
32 Bit Data Transfer	[Disabled]	

Floppy configuration submenu

You can use this screen to change the Floppy Configuration Settings. Use the up and down <Arrow> keys to select an item. Use the <Plus> and <Minus> keys to change the value of the selected option.

Floppy configuration submenu

Main Advanced PCI/PnP Boot Security Chipset Exit	
Floppy Configuration	
Floppy A Floppy B	[1.44 MB 3 1/2"] [Disabled]
Use [Enter], [TAB] or [SHIFT_TAB] to select a field Use [+] or [-] to configure system time. ↔ Select Screen ↑↓ Select item +/- Change option Tab Select field F1 General Help F10 Save and Exit ESC Exit	

Floppy configuration submenu

Features	Option	Description
Floppy Configuration		
Floppy A	Disabled 360 KB 5 1/4" 1.2 MB 5 1/4" 720 KB 3 1/2" 1.44 MB 3 1/2" 2.88 MB 3 1/2"	This setting defines the type of floppy drive installed in the system
Floppy B	Disabled 360 KB 5 1/4" 1.2 MB 5 1/4" 720 KB 3 1/2" 1.44 MB 3 1/2" 2.88 MB 3 1/2"	This setting defines the type of floppy drive installed in the system

Super I/O configuration submenu

You can use this screen to change the configuration of Super I/O. Use the up and down <Arrow> keys to select an item. Use the <Plus> and <Minus> keys to change the value of the selected option.

Super I/O configuration submenu

Main	Advanced	PCI/PnP	Boot	Security	Chipset	Exit
Win627 Super I/O chipset			Use [Enter], [TAB] or [SHIFT_TAB] to select a field			
Onboard Floppy Controller		[Enabled]		Use [+] or [-] to configure system time. ↔ Select Screen ↕ Select item +/- Change option Tab Select field F1 General Help F10 Save and Exit ESC Exit		
Serial Port1 Address		[3F8/IRQ4]				
Serial Port2 Address		{Disabled}				
Serial Port2 Mode		[Disabled]				
Parallel Port Address		[Disabled]				
Parallel Port Mode		[Normal]				
Parallel Port IRQ		[IRQ7]				

Super I/O configuration submenu

Feature	Option	Description
Win627 Super I/O Chipset		
Onboard floppy controller	Enabled Disabled	Enables or disables the onboard floppy controller
Serial Port 1 Address	3F8/IRQ4 3E8/IRQ4 2E8/IRQ3 Disabled	Sets the serial port 1 (com 1) base I/O address and an interrupt number. Disabled - port disabled
Serial Port 2 Address	3F8/IRQ3 3E8/IRQ4 2E8/IRQ3 Disabled	Sets the serial port 2 (com 2) base I/O address and interrupt number. Disabled - port disabled
Serial Port 2 Mode	Normal IrDA ASK IR	Allows BIOS to Select Mode for serial port 2
Parallel port address	378 278 3BC Disabled	Assigns the Parallel Port I/O address. Disabled - Port disabled
Parallel Port Mode	Bi-Directional Normal EPP ECP	Configures parallel port mode. Bi-directional - send and receive data. Normal - can send data. EPP - Enhanced parallel port. ECP - Extended capability port.
Parallel Port Interrupt	IRQ7 IRQ5	Assigns IRQ to parallel port

ACPI settings submenu

Use this screen to change options for ACPI. Use the up and down <Arrow> keys to select an item. Use the <Plus> and <Minus> keys to change the value of the selected option. A description of the selected item appears on the right side of the screen.

ACPI settings submenu

Main Advanced PCI/PnP Boot Security Chipset Exit		
ACPI Settings		Use [Enter], [TAB] or [SHIFT_TAB] to select a field Use [+] or [-] to configure system time. ↔ Select Screen ↑↓ Select item +/- Change option Tab Select field F1 General Help F10 Save and Exit ESC Exit
ACPI Aware O/S	[Yes]	
▶Advanced ACPI Configuration		
WOL S4S5 Support	[Enabled]	
Power Button Instant Off	[Enabled]	
After Power Failure	[Always Off]	

Feature	Option	Description
ACPI Settings		
ACPI Aware O/S	Yes No	Yes - Allows the system to utilize ACPI (Advanced Configuration and Power Interface) specification
WOL S4855 Support	Enabled Disabled	Enable WOL event before system goes to S4855 mode
The power	Enabled Disabled	The Power Button Instant Off function only supports non ACPI O/S
After Power Failure	Always On Always Off Previous State	Determines the mode of operation if an AC power failure occurs

Advanced ACPI configuration submenu

Use this screen to select options for ACPI. Use the up and down <Arrow> keys to select an item. Use the <Plus> and <Minus> keys to change the value of the selected option. A description of the selected item appears on the right side of the screen.

Advanced ACPI configuration submenu

Main Advanced PCI/PnP Boot Security Chipset Exit		
Advanced ACPI Configuration		
ACPI 2.0 Support	[No]	Use [Enter], [TAB] or [SHIFT_TAB] to select a field Use [+] or [-] to configure system time. ↔ Select Screen ↑↓ Select item +/- Change option Tab Select field F1 General Help F10 Save and Exit ESC Exit
ACPI APIC Support	[Enabled]	
Ami OEMB table	[Enabled]	
Headless Mode	[Disabled]	

Advanced ACPI configuration

Feature	Option	Description
Advanced ACPI Configuration		
ACPI 2.0 Support	Yes No	Set this value to allow or prevent the system complying with the ACPI 2.0 specification
APIC Support	Enabled Disabled	This option allows you to delete whether or not to enable ACPI management features
Ami OEMB Table	Enabled Disabled	Set this value to allow the ACPI BIOS to add a pointer to an OEMB table in the Root System Description Table (RSDT). Note, OEMB table is used to pass POST data to the AML code during ACPI O/S operations
Headless Mode	Enabled Disabled	Enable/Disable Headless operation mode through ACPI

DMI event logging submenu

You can use this screen to view the Event Log Control Menu. This logs system events (such as CMOS clear, ECC memory errors, etc.) and writes the log into NVRAM. Use the up and down <Arrow> keys to select an item. Use the <Plus> and <Minus> keys to change the value of the selected option. The settings are described on the following pages.

DMI event logging submenu

Main Advanced PCI/PnP Boot Security Chipset Exit	
DMI Event Logging	
View Event Log Mark All Events as Read Clear Event Log Event Log Statistics	Use [Enter], [TAB] or [SHIFT_TAB] to select a field Use [+] or [-] to configure system time. ↔ Select Screen ↑↓ Select item +/- Change option Tab Select field F1 General Help F10 Save and Exit ESC Exit

Feature	Option	Description
DMI Event Logging		
View Event Log		View all unread events on the event log
Mark all events as read		mark all unread events as read
Clear event log		Discard all events in the event log
Event log statistics		Displays the storage capacity and usage statistics of the event log

Remote access configuration submenu

You can use this screen to view the Remote Access Configuration Menu. This feature allows remote access to the Server via serial port. Use the up and down <Arrow> keys to select an item. Use the <Plus> and <Minus> keys to change the value of the selected option.

Remote access configuration

Main Advanced PCI/PnP Boot Security Chipset Exit	
Configure Remote Access Type and Parameters	
Remote Access [Disabled]	<p>Use [Enter], [TAB] or [SHIFT_TAB] to select a field</p> <p>Use [+] or [-] to configure system time.</p> <p>↔ Select Screen ↑↓ Select item +/- Change option Tab Select field F1 General Help F10 Save and Exit ESC Exit</p>

Feature	Option	Description
Configure Remote Access Type and Parameters		
Remote Access	Disabled Serial SMDC	Enables remote access to system through the serial port

USB configuration submenu

Feature	Option	Description
USB Configuration		
USB Function	Disabled 2 USB ports 4 USB ports	Enables USB host controllers
Legacy USB Support	Auto Disabled Enabled	Enables support for legacy USB devices such as keyboards, mice and bootable USB devices
USB 2.0 Controller	Disabled Enabled	Select "Enabled" if your system contains a USB controller and you have a USB keyboard
USB 2.0 Controller Mode	FullSpeed HiSpeed	Configures the USB 2.0 controller in HiSpeed (480 Mbps_ or FullSpeed 12 Mbps)

USB mass storage device configuration sub-menu

You can use this screen to view the USB Mass Storage Device Configuration Menu. Use the up and down <Arrow> keys to select an item. Use the <Plus> and <Minus> keys to change the value of the selected option.

USB mass storage device configuration

Main Advanced PCI/PnP Boot Security Chipset Exit	
USB Mass Storage Device Configuration	
<div>USB Mass Storage Reset Delay [20 Sec]</div> <div>No USB Mass Storage Device Detected</div>	<div>Use [Enter], [TAB] or [SHIFT_TAB] to select a field</div> <div>Use [+] or [-] to configure system time.</div> <div> ↔ Select Screen ↑↓ Select item +/- Change option Tab Select field F1 General Help F10 Save and Exit ESC Exit </div>

Feature	Option	Description
USB Configuration		
USB Mass Storage Reset Delay	10 Sec 20 Sec 30 Sec 40 Sec	Number of seconds POST waits for the USB storage device after start until command

Onboard devices configuration submenu

Use this screen to change the Onboard Devices Configuration Settings. Use the up and down <Arrow> keys to select an item. Use the <Plus> and <Minus> keys to change the value of the selected option. A description of t

Onboard devices configuration submenu

Main Advanced PCI/PnP Boot Security Chipset Exit	
Special Onboard Devices Configuration Settings	
Onboard ATI Video [Enabled] Onboard 82551 LAN [Enabled] Remote Boot OS by 82551 [Enabled] Onboard 82546 Dualport LAN [Enabled] Remote Boot OS by 82546 [Enabled]	Use [Enter], [TAB] or [SHIFT_TAB] to select a field Use [+] or [-] to configure system time. ↔ Select Screen ↑↓ Select item +/- Change option Tab Select field F1 General Help F10 Save and Exit ESC Exit

Feature	Option	Description
Special Onboard Devices Configuration Settings		
Onboard ATI Video	Enabled Disabled	Toggles the onboard ATI video graphics
Onboard 82551 LAN	Enabled Disabled	Toggles 10/100 Mbit LAN port
Remote Boot OS by 82551	Enabled Disabled	Remote boot OS from 82551
Onboard 82546 Dualport LAN	Enabled Disabled	Toggles the Gigabit LAN ports
Remote Boot OS by 82546	Enabled Disabled	Remote boot OS from 82546

Hardware monitor submenu

You can use this screen to view the Hardware Monitor Configuration Settings. Use the up and down <Arrow> keys to select an item. Use the <Plus> and <Minus> keys to change the value of the selected option.

Hardware monitor submenu

Main Advanced PCI/PnP Boot Security Chipset Exit	
Monitor CPU Temperature, Fan Speed and Voltage	
CPU Temperature	
CPU1	:xx C
CPU2	:xx C
Fan Speed	
CPU1 Fan	:xxxx RPM
CPU2 Fan	:xxxx RPM
Fan2	:xxxx RPM
Fan3	:xxxx RPM
Fan 5	:xxxx RPM
Fan 7	:xxxx RPM
Voltage	
+3.3V	:x.xxx V
+5V	:x.xxx V
+12V	:xx.xxx V
Auto-Control Fan's Speed	[Disabled]
Chassis Intrusion Detect	[Disabled]

Use [Enter], [TAB] or [SHIFT_TAB] to select a field

Use [+] or [-] to configure system time.

↔ Select Screen
↑↓ Select item
+/- Change option
Tab Select field
F1 General Help
F10 Save and Exit
ESC Exit

Hardware monitor submenu

Feature	Option	Description
Monitor CPU Temperature, Fan Speed and Voltage		
CPU1 Temperature CPU2 Temperature		Displays CPU temperatures
CPU1 Fan CPU2 Fan Fan 2 Fan 3 Fan 4 Fan 5 Fan 7		Displays speed of fans connected to appropriate fan headers
+3.3V +5V +12V		Displays voltages for CPU, memory and other devices
Auto-Control Fan's Speed	Disabled Enabled	All fan speeds are controlled by temperature sensor to reduce noise. This feature is not supported by old 603 Xeon processor.
Chassis intrusion Detect	Disabled Enabled	Enabled/Disabled - When chassis is open, event is detected. BIOS will record event.

Advanced PCI/PnP menu

You can use this screen to view PnP (Plug & Play) BIOS Configuration Menu. This menu allows the user to configure how the BIOS assigns resources & resolves conflicts. Use the up and down <Arrow> keys to select an item. Use the <Plus> and <Minus> keys to change the value of the selected option.

Advanced PCI/PnP Menu

Main Advanced PCI/PnP Boot Security Chipset Exit		
Advanced PCI/PnP Settings		
WARNING: Setting wrong values in below sections may cause system to malfunction		Use [Enter], [TAB] or [SHIFT_TAB] to select a field
Plug & Play OS	[Yes]	Use [+] or [-] to configure system time.
PCI Legacy Timer	[64]	
Allocate IRQ to PCI VGA	[Yes]	
Palette Snooping	[Disable]	
PCI IDE BusMaster	[Enable]	
IRQ3	[Available]	
IRQ4	[Available]	
IRQ4	[Available]	
IRQ7	[Available]	
IRQ9	[Available]	
IRQ10	[Available]	
IRQ11	[Available]	
IRQ14	[Available]	
IRQ15	[Available]	
DMA Channel_0	[Available]	
DMA Channel_1	[Available]	
DMA Channel_3	[Available]	
DMA Channel_5	[Available]	
DMA Channel_6	[Available]	
DMA Channel_7	[Available]	
Received Memory Size	[Disabled]	↔ Select Screen
Extended BIOS Data Area	[Enabled]	↑↓ Select item
		+/- Change option
		Tab Select field
		F1 General Help
		F10 Save and Exit
		ESC Exit

Advanced PCI/PnP Menu

Feature	Option	Description
Advanced PCI/PnP Menu		
Plug & Play OS	Yes No	The Yes setting allows the operating system to change the interrupt, I/O, and DMA settings. Set this option if the system is running Plug and Play aware operating systems. Set No for operating systems that do not meet the Plug and Play specifications.
PCI Latency Timer	32, 64 , 96 ...248	This setting controls how many PCI clocks each PCI device can hold the bus before another PCI device takes over. When set to higher values, every PCI device can conduct transactions for a longer time and thus improve the effective PCI bandwidth.
Allocate IRQ to PCI VGA	Yes No	Allows or restricts the system from giving the VGA adaptor an IRQ.
Palette Snooping	Disabled Enabled	This is the default setting and should not be changed unless the VGA card manufacturer requires Palette Snooping to be Enabled.
PCI IDE Bus Master	Disabled Enabled	ENABLED: BIOS uses PCI bus mastering for reading / writing to IDE drives.
IRQ3 - IRQ15	Available Reserved	Allows user to reserve a specific IRQ for a legacy device (Note: most hardware devices & OS do not support manually assigned IRQs).
DMA0 ~ 7	Available Reserved	Allows user to reserve a specific IRQ for a legacy device
Reserved Memory Size	Disabled 16K 32K 64K	Size of memory block to reserve for legacy ISA devices
Enabled BIOS Data Area	Enabled Disabled	Enable / Disable Extended BIOS Data Area

BIOS boot settings menu

You can display Boot Setup option by highlighting it using the <Arrow> keys and pressing <Enter>.

BIOS boot settings menu

Main Advanced PCI/PnP Boot Security Chipset Exit	
Boot Settings	
► Boot Settings Configuration	Use [Enter], [TAB] or [SHIFT_TAB] to select a field
► Boot Device Priority	
► Hard Disk Drives	Use [+] or [-] to configure system time.
► Removable Drives	
► ATAPI CD-ROM Drives	
	↔ Select Screen ↑↓ Select item +/- Change option Tab Select field F1 General Help F10 Save and Exit ESC Exit

Boot Settings configuration submenu

Use this screen to select options for the Boot Settings Configuration. Use the up and down <Arrow> keys to select an item. Use the <Plus> and <Minus> keys to change the value of the selected option.

Boot settings configuration submenu

Main Advanced PCI/PnP Boot Security Chipset Exit		
Boot Settings Configuration		
Quick Boot	[Disabled]	Use [Enter], [TAB] or [SHIFT_TAB] to select a field
Quiet Boot	[Disabled]	
Add On ROM Display Mode	[Force BIOS]	Use [+] or [-] to configure system time.
Boot Up Number Lock	[On]	
PS/2 Mouse Support	[Auto]	↔ Select Screen ↑↓ Select item +/- Change option Tab Select field F1 General Help F10 Save and Exit ESC Exit
Wait for 'F1' If Error	[Enabled]	
Hit 'DEL' Message Display	[Enabled]	
Interrupt 19 Capture	[Enabled]	
Primary Display Devices	[Auto]	

Boot settings configuration submenu

Feature	Option	Description
Boot Settings Configuration		
Quick Boot Mode	Enabled Disabled	Allows user bypass BIOS self test during POST.
Quiet Boot	Disabled Enabled	Enable this option to hide BIOS Post messages during POST
Add On ROM Display Mode	Force Bios Keep Current	Allows user to force BIOS/Option ROM of add on cards to be displayed during quiet boot
Boot Up Number Lock	On Off	Choose status of keyboard NUM LOCK key
PS/2 Mouse Support	Enabled Disabled Auto	Allows user to choose status of PS/2 mouse support
Wait for 'F1' If Error	Enabled Disabled	Allows user to disable the "Press F1 to Continue" error message when error is detected.
Hit 'Del' Message Display	Enabled Disabled	Allows user to disable the "Press DEL to enter setup" message during POST
Interrupt 19 Capture	Enabled Disabled	Allows devices (such as network card) to capture INT19 for booting
Primary Display Device	Auto Onboard VGA	Display Device is used by BIOS POST

Boot device priority submenu

Use this screen to select options for the Boot Device Priority. Use the up and down <Arrow> keys to select an item. Use the <Plus> and <Minus> keys to change the value of the selected option.

Boot device priority submenu

Main Advanced PCI/PnP Boot Security Chipset Exit		
Boot Device Priority		
1st Boot Device	[1st FLOPPY DRIVE]	Use [Enter], [TAB] or [SHIFT_TAB] to select a field Use [+] or [-] to configure system time. ↔ Select Screen ↑↓ Select item +/- Change option Tab Select field F1 General Help F10 Save and Exit ESC Exit
2nd Boot Device	[IBA FE Slot 0108 V4110]	
3rd Boot Device	[IBA GE Slot 0409 V1211]	
4th Boot Device	[IBA GE Slot 0408 V1211]	

Boot device priority submenu

Feature	Option	Description
Boot Device Priority		
1st Boot Device	1st FLOPPY DRIVE Disabled IBA FE Slot 0108 V4110 IBA GE Slot 0409 V1211 IBA GE Slot 0408 V1211	Settings for boot priority can be customized depending on your preference.
2nd Boot Device	1st FLOPPY DRIVE Disabled IBA FE Slot 0108 V4110 IBA GE Slot 0409 V1211 IBA GE Slot 0408 V1211	
3rd Boot Device	1st FLOPPY DRIVE Disabled IBA FE Slot 0108 V4110 IBA GE Slot 0409 V1211 IBA GE Slot 0408 V1211	
4th Boot Device	1st FLOPPY DRIVE Disabled IBA FE Slot 0108 V4110 IBA GE Slot 0409 V1211 IBA GE Slot 0408 V1211	

Hard disk submenu

Use this screen to select options for the Hard Disk Drives. Use the up and down <Arrow> keys to select an item. Use the <Plus> and <Minus> keys to change the value of the selected option.

Hard disk drives submenu

Main Advanced PCI/PnP Boot Security Chipset Exit		
Hard Disk Drives		Use [Enter], [TAB] or [SHIFT_TAB] to select a field Use [+] or [-] to configure system time. ↔ Select Screen ↑↓ Select item +/- Change option Tab Select field F1 General Help F10 Save and Exit ESC Exit
1st Drive	[xx,xxx-xxxxx:xxx]	

Feature	Option	Description
Hard Disk Drives		
1st Drive	xx,xxx-xxxxx:xx Disabled	

Removable drives submenu

Use this screen to select options for the Removable Drives. Use the up and down <Arrow> keys to select an item. Use the <Plus> and <Minus> keys to change the value of the selected option.

Removable drives submenu

Main Advanced PCI/PnP Boot Security Chipset Exit		
Removable Drives		
1st Drive	[1st FLOPPY DRIVE]	Use [Enter], [TAB] or [SHIFT_TAB] to select a field Use [+] or [-] to configure system time. ↔ Select Screen ↑↓ Select item +/- Change option Tab Select field F1 General Help F10 Save and Exit ESC Exit

Feature	Option	Description
Removable Drives		
1st Device	1st FLOPPY DRIVE Disabled	Specifies the boot sequence for removable drive booting. This option will show all removable devices

ATAPI CD-ROM drives submenu

Use this screen to select options for the ATAPI CD-ROM Drives. Use the up and down <Arrow> keys to select an item. Use the <Plus> and <Minus> keys to change the value of the selected option.

ATAPI CD-ROM drives submenu

Main Advanced PCI/PnP Boot Security Chipset Exit		
ATAPI CD-ROM Drives		
1st Drive	[xx,xxx-xxxxx:xxx]	Use [Enter], [TAB] or [SHIFT_TAB] to select a field Use [+] or [-] to configure system time. ↔ Select Screen ↑↓ Select item +/- Change option Tab Select field F1 General Help F10 Save and Exit ESC Exit

Feature	Option	Description
ATAPI CD-ROM Drives		
1st Drive	xx,xxx-xxxxx:xxx Disabled	

BIOS security menu

The system can be configured so that all users must enter a password every time the system boots or when BIOS Setup is entered, using either the Supervisor password or User password. The Supervisor and User passwords activate two different levels of password security. If you select password support, you are prompted for a one to six character password. Type the password on the keyboard. The password does not appear on the screen when typed. Make sure you write it down. If you forget it, you must clear CMOS and reconfigure.

BIOS security menu

Main	Advanced	PCI/PnP	Boot	Security	Chipset	Exit
Security Settings				Use [Enter], [TAB] or [SHIFT_TAB] to select a field Use [+] or [-] to configure system time. ↔ Select Screen ↑↓ Select item +/- Change option Tab Select field F1 General Help F10 Save and Exit ESC Exit		
Supervisor Password: User Password: ▶Change Supervisor Password ▶Change User Password Clear User Password Boot Sector Virus Protection [Disabled]						

BIOS security menu

Feature	Option	Description
Security Settings		
Supervisor Password	Not Installed Installed	If the password has been set, Installed displays. If no password is set, Not Installed displays.
User Password	Not Installed Installed	If the password has been set, Installed displays. If no password is set, Not Installed displays
Change Supervisor Password		Select this option to change Supervisor Password
Change User Password		Select this option to change User Password
Clear User Password		Select this option to clear User Password
Boot Sector Virus Protection	Disabled Enabled	Protects the first sector of the Hard Drive from being written

BIOS chipset settings

This menu allows the user to customize functions of the Intel Chipset. Select a menu by highlighting it using the <Arrow> keys and pressing <Enter>.

BIOS chipset settings

Main Advanced PCI/PnP Boot Security Chipset Exit	
Monitor CPU Temperature, Fan Speed and Voltage	Use [Enter], [TAB] or [SHIFT_TAB] to select a field Use [+] or [-] to configure system time. ←→ Select Screen ↑↓ Select item +/- Change option Tab Select field F1 General Help F10 Save and Exit ESC Exit
WARNING: Setting wrong values in below sections may cause system to malfunction. ►Intel E7500/E7501 Northbridge ►Southbridge Configuration ►Intel PCI-64 Hub 2 Configuration	
Clock Gen. Spread Spectrum [Disabled]	

Feature	Option	Description
Advanced chipset settings		
Clock Gen. Spread Spectrum	Disabled Enabled	Enabled / Disabled clock generator spread spectrum feature.

Northbridge chipset configuration submenu

This menu gives options for North Bridge Chipset Configuration settings. Select a menu by highlighting it using the <Arrow> keys and pressing <Enter>.

Northbridge chipset configuration menu

Main Advanced PCI/PnP Boot Security Chipset Exit		
Configure Advanced Settings for Northbridge		
Chipset Memory Remap Feature	[Enabled]	Use [Enter], [TAB] or [SHIFT_TAB] to select a field Use [+] or [-] to configure system time. ↔ Select Screen ↑↓ Select item +/- Change option Tab Select field F1 General Help F10 Save and Exit ESC Exit
CAS Latency	[Auto]	

Feature	Option	Description
Configure Advanced Settings for Northbridge		
Chipset Memory Remap Feature	Disabled Enabled	ENABLE: Allow remapping of overlapped PCI memory above the total physical memory DISABLE: Do not allow remapping of memory
CAS Latency	Auto 2 2.5	CAS Latency Select. Choose 2, 2.5 or Auto by SPD

Southbridge chipset configuration submenu

This menu gives options for South Bridge Chipset Configuration settings. Use the up and down <Arrow> keys to select an item. Use the <Plus> and <Minus> keys to change the value of the selected option.

Southbridge chipset configuration menu

Main	Advanced	PCI/PnP	Boot	Security	Chipset	Exit
Southbridge Chipset Configuration						
MPS Revision [1.1]						Use [Enter], [TAB] or [SHIFT_TAB] to select a field Use [+] or [-] to configure system time. ↔ Select Screen ↑↓ Select item +/- Change option Tab Select field F1 General Help F10 Save and Exit ESC Exit

Feature	Option	Description
Southbridge chipset configuration		
MPS Revision	1.1 1.4	

Intel PCI-64 Hub 2 configuration submenu

This menu gives options for Intel PCI-64 Hub 2 Configuration settings. Select a menu by highlighting it using the <Arrow> keys and pressing <Enter>.

Intel PCI-64 Hub 2 configuration submenu

Main Advanced PCI/PnP Boot Security Chipset Exit	
Intel PCI-64 Hub 2 Configuration	
PCI Bus Frequency [Auto]	<p>Use [Enter], [TAB] or [SHIFT_TAB] to select a field</p> <p>Use [+] or [-] to configure system time.</p> <p>↔ Select Screen ↑↓ Select item +/- Change option Tab Select field F1 General Help F10 Save and Exit ESC Exit</p>

Feature	Option	Description
Configure advanced settings for Northbridge		
PCI Bus Frequency	Auto 33 MHz 66 MHz 100 MHz 133 MHz	This section will allow you to select the maximum PCI bus speed. The default will always be set to AUTO.

BIOS exit menu

You can display an Exit BIOS Setup option by highlighting it with the <Arrow> keys and pressing <Enter>.

BIOS exit menu

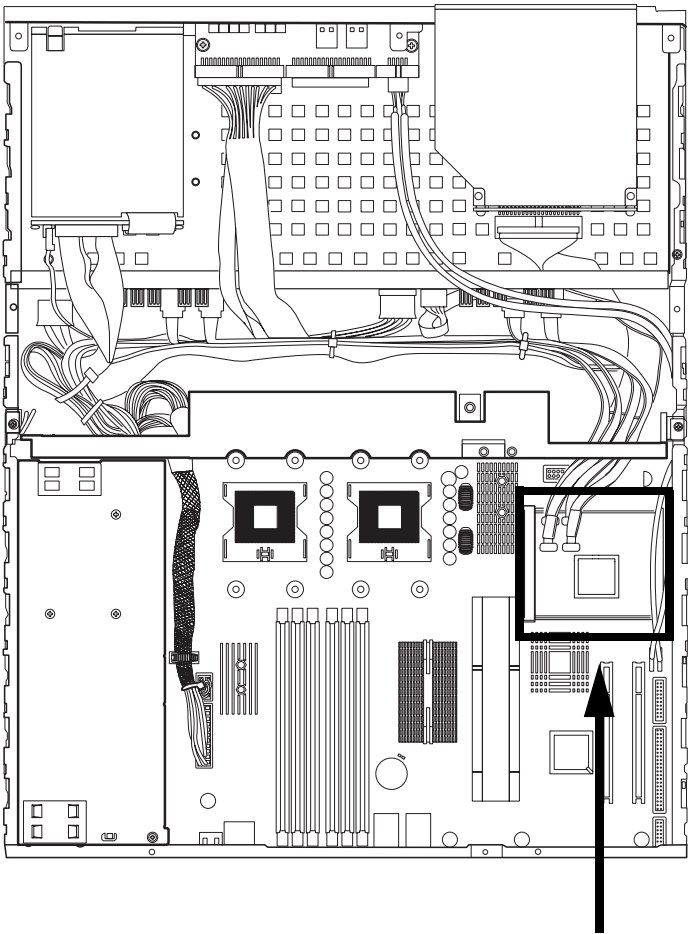
Main Advanced PCI/PnP Boot Security Chipset Exit	
Exit Options	
Save Changes and Exit Discard Changes and Exit Discard Changes Load Optimal Defaults Load Failsafe Defaults	Use [Enter], [TAB] or [SHIFT_TAB] to select a field Use [+] or [-] to configure system time. ↔ Select Screen ↑↓ Select item +/- Change option Tab Select field F1 General Help F10 Save and Exit ESC Exit

BIOS exit menu

Feature	Option	Description
Save Changes and Exit		Use this option to exit setup and reboot. Changes you have made are stored into CMOS.
Discard Changes and Exit		Use this option to exit setup and reboot. Changes you have made are not stored in CMOS.
Discard Changes		Use this option to discard all changes that you have made but not saved in CMOS.
Load Optimal defaults		Use this option to load default performance setup options when settings have become corrupt.
Load Failsafe Defaults		Use this option to load default failsafe values when trouble-shooting.

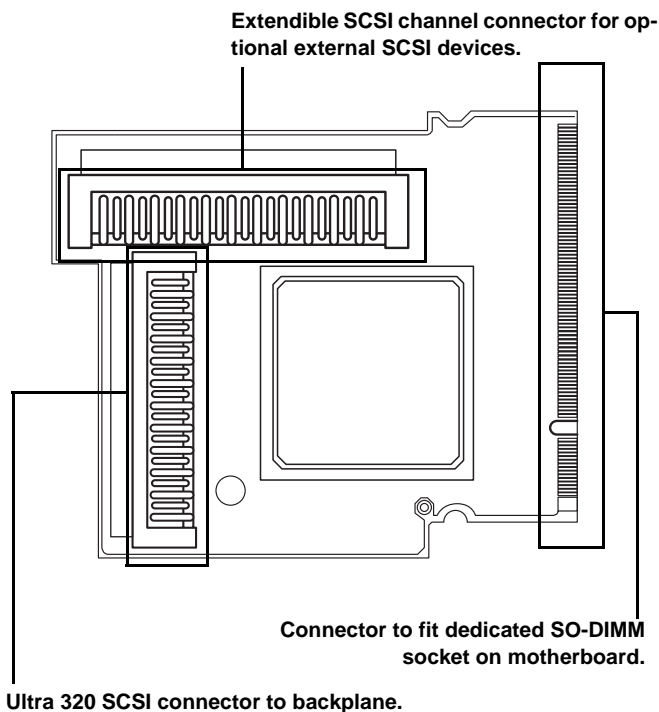
SCSI and S-ATA controller cards

Controller card location



Controller card slot for TYAN M7902 Ultra 320 SCSI controller card (B2735G21U4H) or TYAN M8110 S-ATA RAID controller card (B2735G21S4H)

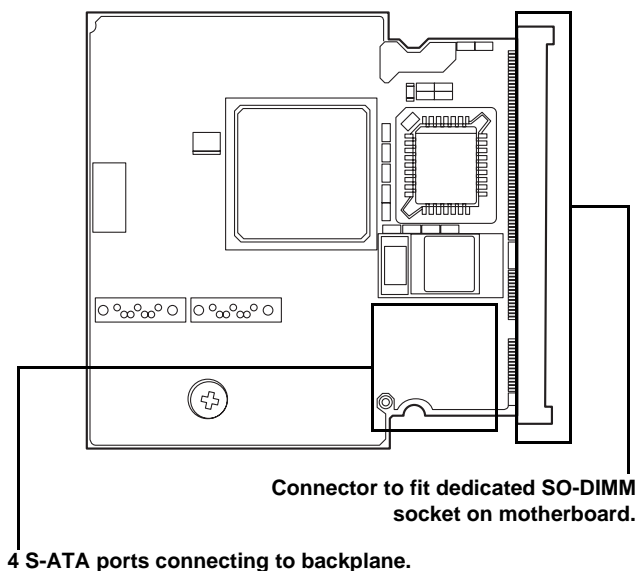
M7902 Ultra 320 SCSI controller card features



Key Features

- Based on Adaptec AIC-7902 dual-channel Ultra320 SCSI Host Controller.
- Up to 320Mbytes/sec on each Ultra320 SCSI channel for a total bandwidth of 640Mbytes/sec.
- Supports up to 15 SCSI devices per channel
- Compliant with PCI 2.3 and PCI-X 1.0Aa specifications
- 64-bit PCI-X interface
- Form factor: TYAN proprietary 200-pin SO-DIMM interface
- Dimensions: 87 mm x 76 mm

M8110 S-ATA RAID controller card features



Key Features

- Based on Adaptec/Marvell 8110 SATA Host Controller providing 4 S-ATA ports and a flash controller.
- Compliant with S-ATA rev. 1.0 specifications.
- Supports 4-port 1.5Gbps S-ATA
- Supports S-ATA power save mode and hot-plug.
- 512-byte buffer for read and write transactions per S-ATA port.
- 64-bit PCI-X interface.
- Form factor: TYAN proprietary 200-pin SO-DIMM interface.
- Dimensions: 78 mm x 76 mm.

Technical support

If a problem arises with this system, you should consult your dealer first for help. The system is likely to have been configured by your dealer, making him the most appropriate choice when seeking technical advice. Your dealer may also be close enough to visit with the hardware for servicing or testing.

Help resources:

1. See the beep codes section in the motherboard manual
2. See the TYAN website for FAQs, bulletins, driver updates and other information: <http://www.tyan.com>
3. Only contact TYAN after first speaking with your dealer
4. Check the TYAN user group:
`alt.comp.periphs.mainboard.TYAN`

Returning merchandise for service

If any problems occur during the product's warranty period, consult your system vendor or distributor before contacting TYAN. The warranty covers normal customer use of the product. The warranty does not cover damages sustained during shipping or failure due to alteration, misuse, abuse, or improper maintenance of the unit.

Note: A receipt or copy of your invoice, marked with the date of purchase, is required before any warranty service can be provided. You may obtain service by calling the manufacturer for a Return Merchandise Authorization (RMA) number. The RMA number should be displayed prominently on the outside of the shipping carton, and the package should be mailed prepaid. TYAN will pay to have the product shipped back to you.

